JOURNAL
MISSOURI STATE MEDICAL ASSOCIATION.

VOLUME I. FEBRUARY. NUMBER 8.

ORIGINAL ARTICLES.

PSYCHOLOGICAL THERAPEUTICS.

By Ernest H. Spooner, M. S. P., M. D., St. Louis, Missouri.

This subject was not the first choice of the writer, but as the subject, "The Physician as a Reformer," was not deemed of sufficient strictly scientific interest by the programme committee, the writer, per force, selected the subject of "Suggestive or Psychological Therapeutics," as it is a more up-to-date subject and stands out alone and distinct from the common herd of subjects before us that have been hashed and rehashed from year to year at every convention.

I well know that this subject may not meet with much approval or favor from some, as anything claiming to cure by any other means than drugs or standard pharmaceutical preparations, is looked upon by the regular in derision, and anything claiming to influence disease through the mind as a fake, a delusion and quackery. There are lots of quacks making money.

We all practice psycho-physiologic therapeutics to a more or less extent, but some do it unconsciously and without any system. How much more powerful that influence would be if used scientifically. Psychological therapeutics is curing, or aiding in the cure, of disease through the mind.

Every age has its wonders and distinctive epochs, as individuals their characteristics aad idiosyncrasies; so each and every school of medicine or class of followers of Æsculapius and Hippocrates have their chief or distinguishing characteristics, or strong and weak points, some good and some otherwise. When the writer was asked some time since if he was a Republican or Democrat, he answered no, I am a physician and surgeon, and when asked what school, if allopath or homœopath, I answered that I was practicing the regular, but would go in any old path, even a mountain path, rather than not effect a cure. The physician should not be narrow-minded, but broad enough to change his opinion once in a while. The greatest philosopher is one who can see his mistakes and change his opinions occasionally. However, we should not accept new ideas as gospel truth too readily, but remember that, in science, as in fashion. "The same rule will hold; Alike fantastic, if too new or old; Be not the first by whom the

new are tried, Nor yet the last to lay the old aside." We must admit that there is a power in the mind or acknowledge nothing. It is action of the mind that makes the world go, builds up character and the body, and if it is so powerful in commerce and muscular development, surely it must have a therapeutic quality or power over disease. In this paper I may not believe or advocate all the passages quoted, any more than a certain infidel orator believed all he said, nevertheless, I may be able to awaken an interest or enthusiasm, and get the views of the other members of the association and thereby arrive at the truth. I do not wish to be understood as favoring Christian Science, as it is neither Christian or scientific. Their reason is a fallaceous philosophy, and their practices detrimental and disastrous in a great number of cases. It is neither fathered by science or mothered by Christianity, and it is but a branch of occultism and animal magnetism, and when they do cure it is generally a neuropath, and by auto-suggestion, not automobile. However, I am a Christian and hope to lay some claim to being scientific.

Medical fashion and fads change as do spring bonnets, and about the time we are getting pretty well acquainted with a drug or system along comes another, and sometimes better, to challenge our attention. The former can be instanced in the multitudinous German synthetic compounds with barborous polysyllabic names, in the patent food stuffs and systems ad nauseam; and great medical works written and in only a very few cases a line or so on the value of the mental factor in disease or therapeutics. What can be more fascinating or philosophical, or of the greatest scientific medical interest, than the study of that power or force which governs our body, viz., the brain or the conscious and sub-conscious mind that governs our voluntary and involuntary acts. The brain, that little collection of human essence, that organ that governs the world, through which all our actions spring, and from which all our nerve force, energies and dynamic forces emanate, is certainly a factor to be reckoned with. If we admit that "Mens agitat molem," mind moves matter, as we must, that it has a power especially through imagination to cause, or abet the cause of disease, then conversely we must acknowledge that it has a power to cure, or aid in the cure, of disease. We do not advocate psycho-therapeutics as some do a patent medicine, that it is a cure-all; but the more we study into it the greater is our belief that there is *something* in it, and if not a cure in itself, it is certainly an adjuvant, and there are a number of things that act as adjuvants to it, as, for instance, electricity properly applied, mechanical or medical means, or some externalizing influence is brought to bear or strengthen the impression on the mind, and this impression is made to a certain extent through the eye, "the window of the soul." The blind and deaf are not as easily influenced by suggestion as those who have good eyesight and hearing. The study of this subject naturally involves a study of the mind, a knowledge of the anatomy and physiology of the brain and powers of the mind with its multitudinous ramifications, and which

lead us into the field of psycho-therapy, a much trodden field by the quack, charlatan, mystic, magnetic healer, ad nauseam. Suggestion and its results is an old subject, for it takes us back to ancient times, for did not Jacob know something of suggestion when he put ringed sticks before the cattle at time of conceiving so that Laban's flocks, which Jacob tended, brought forth ring streaked, and striped cattle, which were to be Jacob's? We may not understand this clearly, but there are laws for everything, as every effect has a cause, and there are a great many laws yet undiscovered, and a number, perhaps, that God will keep sacredly to Himself that man may never know. Before speaking of psycho-therapeutics in particular we wish to mention a few things in general leading up to it. Imagination is a great therapeutical agent and plays quite an important role in the cause and cure of our bodily ailments. Suggestive therapeutics is not hypnotism by any means, although a susceptibility to suggestion is exalted by the hypnotic state. Every case is a law unto itself. Suggestion works much better on some than others, and after a little practice you can pick your cases. It is claimed that there is no disease known to humanity but what can be benefitted and a great many cured, especially the psycho-neuropathological cases, by its employment.

Had we time we would quote largely from Dr. Bernheim, of Berlin, a peer on the subject; also from the book entitled "Force of Mind," by Dr. Schofield, of London, England, but fifteen to twenty minutes will not allow of this so must be content with a few quotations. Schofield says: "Is it not extraordinary what value the public attach to such a trivial matter as 'cure;' yet how utterly incapable they seem of grasping the importance of diagnosis?" "Can it be that the 'bold quack' wields some power called 'mere force of assertion' that the physician does not understand or does not condescend to use? Does the virtue lie in the 'boldness of the quack,' in the 'force of the assertion,' or in both? In both, probably; and I personally may assert, with some force, that their acknowledged value by such a man as Sir James Paget, proves that in his opinion the mental factor cannot only cause, but cure disease, and that it can be made available by 'force and boldness,' but the latter are such intangible, such unorthodox drugs." That mind and body are in some way connected was known long before the Greeks associated the mental state with the physical cause, by inventing the term melancholy (black bile). It is, indeed, only within the last century that the practice of medicine has been severed from its connection with archiacs, black art, witchcraft, astrology, phrenology, quackery and knavery of all kinds; most of these being more or less psychical in their nature. The medical man of the present day values too much his freedom from the errors and mysteries of mediæval medicine. He knows too well what his profession owes to the inductive methods of diagnosis, to the exact observation aided by modern instruments of precision, to the advances in physiology, pathology and bacteriology, to be over anxious to turn aside to the study of the interaction of the physic with the psychic. Med-

ical colleges of the present day teach very completely everything pertaining to the human body and its care, but very little concerning the mind or soul and its power over disease, thus the omnipresent mental factor is almost universally ignored. One of the best ways to contract disease is to be afraid of it. Physicians and nurses do not contract disease, because they are not afraid of disease.

If we would be all-round men we must study everything. All over the world we find irregular regulars, who are not altogether bound by the traditions of schools. Dr. S. Weir Mitchell, of Philadelphia, tells of, "Our best have owned the rare dramatic power which gives to sympathy its lifting hour; Go learn of them, the masters of our art, To trust that wise consultant called the heart. There are among us those who haply please To think our business is to treat disease, And all unknowingly lack this lesson still, 'Tis not the body, but the man is ill."

The material is vitalized by Plato when he says: "The good soul (or mind) improves the body." Mens sana in corpore sano, a sound mind in a sound or healthy body. Professor Calderwood, when he says: "Mind and body form a unity of life. Mind so acts on body that the body performs only a limited range of its functions without intelligent direction. The unity is that of a rational life, manifesting itself in a rationally directed physical life." Herbert Spencer, speaking of some who fear that mind may possibly be interpreted in terms of matter, says: "There is not the remotest possibility of so interpreting it. We may regard the brain as the principal seat of the mind, although by no means its exclusive sphere, which, indeed, extends throughout the entire organism." Aristotle regarded the heart as the seat of the soul, and the brain as an inert, bloodless body, used to cool the heart. Bernheim quotes Pierre Ponponazzi, of Milan, in the following words: "We can easily conceive the marvelous effect which confidence and imagination can produce, particularly when both qualities are reciprocal between the subjects and the person who influences them. The cures attributed to certain relics are an effort of the imagination and confidence. Quacks and philosophers know that if the bones of any skeleton were put in the place of the saints' bones, the sick would none the less experience beneficial effects, if they believed they were near veritable relics." A number of strong and interesting quotations could be made from such men as Paracelsus, Sir J. Crichton Browne, Dr. Hack Tuke, Dr. Laycock, Dr. Bernheim, Dr. Benj. Rush, Kraft-Eibing, etc., concerning the power of the mind over the body. Prof. Gairdner, president of the British Medical Association, says: "We must acknowledge the spiritual element in man is brought necessarily into the sphere of the physician's daily work." De Fleury says: "The modern doctor must understand the pathology and hygiene of the intellect. There can be no doubt that the fields of psycho-physiology, psycho-pathology and psycho-therapeutics are as yet almost untouched." The study of the mind is now mainly relegated to the philosopher, the preacher, and the alienist; but a sound specialism, after all, can only be built on a solid and broad generalization. Phi-

losophers and ministers, however, are students of the mind and soul, and the alienist of the diseased mind; what we need is physicians trained in the knowledge of mind and body, and who thus would prove better specialists than any of the three. Physique, dress, carriage and general appearance are great adjuncts to a physician's success, but they are not to be compared with mind and character. But if a favorable impression is made on the patient's mind at first meeting, the patient's faith and confidence will be the more readily established. Dr. Schofield says: "As the action of the mental factor in disease is unconscious, it cannot be recognized as mental by those who limit mind to consciousness. The word 'mind' must, therefore, be extended to include all psychic action." Speaking of mind it is even evident below the amoeba and protozoa; the choice of action is found in the arcellae and volition, appetite and passion, in the amoebae and rotifers. "If we let our gaze travel beyond the creatures that are possessed of a glimmer of intelligence and consciousness," says Maeterlink, "beyond protozoa even, which are the first nebulous representatives of the dawning animal kingdom we find, as has been abundantly proved by experiments of H. J. Carter, celebrated microscopist, that the very lowest of embryos, such as the myxomycites, manifest a will, desire and preferences; and that infusoria, which, apparently, have no organism whatever, give evidence of a certain cunning. The amoebae, for instance, will patiently lie in wait for the new born acinetes as they leave the maternal ovary, being aware that these must as yet be lacking their poisonous tentacles."

Psycho or suggestive therapeutics can play an important part in the following diseases: psychopathia sexualis, on which we will not have time to dwell, though a very interesting subject, Sadism, moschism, fetichism, homo-sexuality, sexual inversion, sexual perversion, antipathic sexual instinct, satyriasis, nymphomania, hysteria, melancholia, paranoia, spinal neuroses and epilepsy, etc. A strong will is a good therapeutic agent. We have probably all seen cases that would have been victorious over their disease had they been possessed of a stronger will-power and sympathetic nervous system, and a healthier sub-mentality. Sympathy also plays an important role in the cure of disease. Sometimes a little sympathy and philosophy in the way of a clear explanation to a patient concerning his trouble or diseased imagination, will accomplish more than salves, lotions and pills, and the patient's pains will drift away or vanish like the morning mist before the rising king of day. We can calm the mind in excitement. I remember being in a church one Sunday afternoon when a severe storm came up suddenly; it blew out a window-light, which frightened the children and some of the older ones considerably, and there was almost a stampede; but I went to the piano and played "There Is Sunshine in My Soul," and order was soon restored. We can arouse feelings of joy and hope that spring eternal in the human breast; and faith, without which much would be in vain; and

love, that greatest tie of the human soul. We can ameliorate a patient's condition by directing his thoughts from his malady, and in many other ways. Philanthropy, ambition, indifference, patience, altruism, common sense, neglect, religion, and sympathy—all are, at times, good mental medicines. The illegible prescription, the doctor himself, his office, and especially his fee, if impressive, are all therapeutical agents of much value. The *vis medicatrix naturæ* is said to be the unconscious mind. We have read of cases where medicines have worked the reverse way because the patient did not understand the doctor. Though nearly all drugs have a psychic action, certain drugs triumphantly assert their physical powers in spite of latter-day skepticism. No mind force is on a par for certainty of action with mag. sulph., pulv. jalap, oil tiglii or apomorphia. A case was cured of organic heart trouble by losing her reason.

Anæsthesia is common with melancholiacs, hyperæsthesia with neurotics. Insensibility and pain are common in mental disease. Soldiers in victory remain practically insensible to cold and thirst at the beginning of a battle, and scarcely feel any pain in the wound until after the battle is over. Toothache ceases in the dentist's room, and pain goes when the doctor comes. Physicians and others can produce sickness without knowing it, by pessimistic prophecies, by anxious looks or words. So disease may be unconsciously suggested by the physician. We could all cite, no doubt, some peculiar and interesting cases, and some who have gotten well much quicker than we expected. "A hopeless epileptic never had a fit after seeing his daughter burn to death." However, the writer would not recommend this as a regular treatment for epileptics. A doctor was called to see a lady suffering from a severe attack of rheumatism, and he extemporized a steam bath by means of a kettle and a pipe; the water boiled over and scalded her, and she said: "Oh! doctor, you have scalded me," and leaped out of bed.

Tuke says that "Mental therapeutics without hypnotism can cure toothache, sciatica, painful joints, rheumatism, gout, pleurodynia, colic, epilepsy, pertussis, contracted limbs, paralysis, headache, neuralgia, warts, scurvy, dropsy, intermittent fever, alcoholism, typhoid fever, and even impending death." Mental treatment is very beneficial in gynæcology. A boy had warts cured by placing his hand in blue water. A man defrauded his brother, and came to the doctor for anorexia, dyspepsia and debility. The doctor discovered the mental factor, made him repay his brother, and the case was cured. A great many more cases could be mentioned, but we have not the time now. You may say some of these cases of cure or apparent cure by suggestion are coincidences, but could we not say that of a good many other things also? In conclusion, some claim that the study of psychological therapeutics should be in the college curriculum and then we may have abler workers in this line.

The physician should be cheerful; a smile costs no more than a frown, and a kind word or action may sow the seed of an enduring blessing; and

remember what the wisest man tells us in the Bible: "A merry heart doeth good like a medicine, but a broken spirit drieth the bones." We can teach, preach, live and suggest good suggestions from a good, healthy mind to those around us, especially the young, in the way of purity of action and character as well as purity of drugs; and if these suggestions are good and strong, they will bring a rich reward. If you tell a child it is bad, it may be so impressed that way that it will grow up thus; tell it it is good, and it will have something to live for. Sometimes the rules and regulations posted in a school room will remind the children of things they would otherwise never have thought of. By good, healthy suggestions our patients may get well quicker, and we may not have quite so much money off each case, but we will get more cases, and what we lose here we will reap in heaven—those of us who get there. A suggestion from the family physician will sometimes go further with a child than a whipping from its parents.

As physicians and members of such a noble calling, we should be willing to tread in any path provided it is the path of truth, justice and mercy; and if by delving into the depths of earth, through rocks and clay, or climbing up the steep and rugged mountain side, through flint rock and piercing thorns, we can be of the most good to our fellow-beings, it were better than to go by the level valley, through flower-covered fields or shady dell. In closing, I would suggest that from now on we use our minds in the right direction more than we have in the past, and great good will have been accomplished.

A REPORT OF THE STATE BACTERIOLOGIST TO THE MISSOURI STATE BOARD OF HEALTH UPON AN EPIDEMIC AT WIEN, CHARITON COUNTY, MISSOURI.

By A. J. Detweiler, M. D., Columbia, Missouri.

An epidemic of rather severe proportions broke out in and around Wien, Chariton County, during the past August and continued during September. We were not informed of its existence until there had been quite a number of deaths. Wien is a small village of six or seven houses surrounded by a productive and thrifty German Catholic community. The area involves about eight miles square.

During these two months Drs. W. J. Billeter and C. O. West reported 126 cases with twenty-two deaths. A few other cases occurred within this community, but are not included in this report.

The following description of the last case treated by Dr. W. J. Billeter is fairly typical. The patient had not recovered when the description was written up: "James McSparren, aged seventeen months, male, white. Began with diarrhoea on September 6th. Had several watery stools on first day and more on the second day. I saw him September 8th or third day of the disease. Pulse, 110; respiration, 25; temperature, 101½° F.

Tongue slight yellow coating. Bowels moving quite often, sometimes thin and watery; at other times containing only mucus and blood. Number of stools in the first twenty-four hours, twenty-four or more. Pain before evacuation well marked, child often crying just before bowel movements. No nausea or vomiting at first. The following shows the number of evacuations for each day since I first saw him—

September..	8	9	10	11	12	13
	—	—	—	—	—	—
Dejections...	24	20	15	12	12	16
September..	14	15	16	17	18	19
	—	—	—	—	—	—
Dejections..	13	14	14	15	20	16
September.....				20	21	22
				—	—	—
Dejections.....				11	13	8

Mucus and blood were never entirely absent from the stools. No tympanites at any time. More or less nausea for several days now, more marked just before his bowels move. Temperature has never been above 102° F., but has been ranging from normal to 100½° most of the time. Pulse ranges from 100 to 120.

Treatment.—Calomel, 1-10 gr. every hour for eight or ten doses, first day. Elix. lactopeptine in teaspoonful doses, combined with bismuth subnitrate in 10 gr. doses, every three hours; also syrup rhei every three or four hours, second day. On the morning of third day, September 10th, at 9 A. M., gave 10 c.c. of antidysenteric serum; again another 10 c.c. at 9 P. M. same day. Also have used rectal and colon irrigations of normal salt solutions almost every day. Have used as intestinal antiseptics salol, sulph. carbol. zinc, acetozone. For pain and tenesmus used Dover's powders, and starch and tinct. opii following irrigations. Gave also an occasional dose of ol. ricini, with four or five drops of turpentine. In former cases used both mineral and vegetable astringents, but never seemed to get the results desired.

Diet.—Egg albumen, broths, boiled milk with lime water, egg-nog, etc."

In some of these cases the stools became as frequent as two hundred in twenty-four hours. The temperature was not high in any case; in some it was subnormal. The patients all had a more or less apathetic appearance. One case developed a marked jaundice before death. Three children developed such nervous symptoms as opisthotonos, narrowed pupils, coma, etc.

Dr. Billeter gave a partial list of the number affected in each family, their ages and ages of those who died:

Names.	Number in Family.	Cases in Family.	Ages.	Deaths.	Ages at Death.
Cortes	7	3	2, 7, 14	1	2
Abrahams	8	7	50, 43, 18, 15, 12 8, 10	2	12, 8
Venneman	5	1	19	.....	.....
Bagley	4	1	13	.....	.....
Bange	6	1	13	.....	.....
Kahs	6	4	12, 8, 6, 11 months	1	11 months
Bixemans	8	6	.....	.....	.....
Kemphaus	6	3	4, 8, 14 months.	1	14 months
Steffes	8	8	.....	.....	.....
Nellesen	6	5	17, 10, 8, 3, 60	.....	.....
Allbenasius	7	3	2, 4, 6	.....	.....
Rogers	5	2	60, 3 months	1	3 months
Heltzs	7	1	3 months	.....	.....
Hanngessier	4	2	21, 63	.....	.....
Biegel	3	1	65	.....	....
Huber	7	3	3, 8, 10	.....	.....
Stevens	6	3	20, 24, 60	.....	.....
Niemeier	4	3	27, 3, 14 months	1	3
Bauer	7	4	50, 11, 3, 8 months	2	3, 8 months
Bangs	9	5	6 weeks, 13	1	13
Hingle	6	4	2, 17, 13, 55	.....	.....
.....	.....	4	.....	1	8 months

Four of these cases were treated part of the time by other physicians.

Dr. C. O. West reported fifty-two cases with eleven deaths. He gave the ages of forty-four in this proportion: Thirteen were above eighteen years of age, thirty-one under eighteen years. Since reporting the forty-four cases he had eight more cases, of which two died, the ages not being reported. Among the above forty-four cases three deaths occurred in the fifteenth year, the remainder being younger.

The total death rate was a little above 17 per cent. However, since none above fifteen years died, we find that the death rate was very high among children. Thus eliminating the last eight cases and two deaths reported by Dr. West, because he did not state the ages, we find that the death rate under eighteen years was about 29 per cent.

I visited the locality at two different times towards the latter part of the epidemic. On each occasion I could remain only one day. Upon each visit I collected a few stools and drops of blood from typical cases. The stools were placed in bottles sterilized by dry heat. The drops of blood were taken from the lobe of the ear and allowed to dry on sized paper. Samples for the bottles were taken only from bloody mucous stools passed during my visit.

Since the symptoms were very simi-

lar to those described in the attacks of dysentery, in which cases Shiga succeeded in isolating a typical bacterium which he demonstrated was the cause of the disease, which was subsequently corroborated by Flexner in the Philippines, as well as others in Europe and America, I was impelled in a small way to search for such an organism in the patients suffering from this epidemic at Wien. I selected a small particle from each of the stools with which three agar-agar plates were made in each case. The agar plates were placed in an incubator for forty-eight hours, after which stab cultures into glucose litmus agar were made from certain colonies. At the same time for comparison agar plates were made with a culture of Shiga bacillus kindly sent to me by Dr. Bergey of the University of Pennsylvania. After having studied these colonies and descriptions of the Shiga bacillus, I stabbed those colonies most closely corresponding to colonies of Shiga's bacillus. Since the different members of the dysentery group do not ferment glucose media, at least not abundantly, I discarded all those cultures which fermented glucose abundantly. Those which fermented glucose probably were members of the colon or proteus groups. Thus from six stools I made thirty-seven cultures. Of the thirty-seven cultures made, only five did not ferment glucose. These five cultures were all obtained from one case, a boy seventeen years old, sick four days when the stool was passed. He recovered in six days. These bacteria were rod-shaped and about the size and shape of the typhoid bacillus. When grown on agar they were not motile, but were motile when grown in beef tea. They stain easily with aniline dyes, but not with Gram's stain. They did not coagulate milk, nor liquify gelatine. No indol was produced in fourteen days. In beef tea a heavy cloud was formed, no surface scum and little deposit. On agar slant a thin white glistening translucent growth was produced. Agar colonies, which at first were white and translucent later became slightly brownish. The colonies were round, flat and finely granular, the granules being coarser toward the center. While similar in many characteristics to the Shiga bacillus, this germ did not seem to be pathogenic or toxicogenic for guinea pigs. One cubic centimetre of a beef tea culture incubated at 39° C. for twenty-four hours was injected into each of four guinea pigs, weighing about 250 grams. Two of them received the injections intraperitoneally, and two subcutaneously. None of the guinea pigs seemed to suffer any ill results from the inoculations. Moreover, this bacterium was not agglutinated by blood in dilutions of 1-10 from the patient which had passed that stool nor by the blood of five other patients in later stages of the disease or having recovered from it. A dysenteric antitoxine, which was claimed to be produced by means of several different varieties of dysentery bacilli, did not agglutinate this bacterium in dilutions of even 1-10.

The Shiga bacilli mentioned above were almost immediately agglutinated by this dysenteric antitoxine in dilutions of 1-10. Blood from some of these patients was tested upon this Shiga bacillus. For this purpose blood was selected from a boy sick

ten days; a girl three years old sick fourteen days; a girl seven years old sick twenty-four days, and a girl ten years old convalescent for ten days. In none of these tests was the Shiga bacillus agglutinated in the least by dilutions 1-10 in four hours.

The epidemic continued for about eight weeks. We could not discover the method of transmission, although we suspected that it was carried from house to house by visitors. In many cases, however, members of the families declared they had not visited any families suffering from the disease. Children did not attend church after the epidemic broke out, and very few adults. The funerals of the dead were not attended by children, and were more or less private. We insisted that visiting of the sick should be stopped as much as possible. Flies were very abundant at this time. Judging from what I observed in some families of six or eight members crowded into small houses of three or four rooms, there were abundant opportunities at times for the disease to be transmitted through the family by these pests. The kitchen was in many cases adjoining the sick room without even a screen door separating them. However, many of the houses were a mile or more apart. Flies could hardly have carried the infectious agent this far.

The afflicted families were told to immediately disinfect the stools with carbolic acid or chloride of lime and then bury them. This was not carried out at first, and no doubt carelessly at all times.

Judging from a hurried inspection of the locality, and as a result of the attending physicians' information, I was led to believe that those families which followed ordinary hygienic laws of eating and drinking were not affected.

Although this was undoubtedly a form of dysentery similar to that found elsewhere and caused by some member of the Shiga-Kruse group, I was unable to demonstrate such in the few cases which I investigated in this epidemic. Moreover, blood from these patients did not agglutinate Shiga bacilli, which should have been the case were the Shiga bacillus or members of the same group etiological factors in these cases.

Some bacteriologist at different times have suspected that members of the colon or proteus groups of bacteria may under certain conditions of climate and unsanitary conditions of living become virulent and thus cause cholera-infantum and dysentery. There is this possibility in an epidemic like this, where one cannot find members of the Shiga-Kruse group, nor get agglutinations of these germs by means of the patients' blood. However, this side of the epidemic was not investigated, owing to the limited facilities at my disposal.

Undoubtedly the disease was caused by a highly infective organism which was probably in the stools of the sick and which may remain for quite a length of time after recovery. For this reason we advised the people at Wien to disinfect the public privy vaults by emptying several barrels of lime into them at different intervals this fall. We have also advised them to guard against contamination of their drinking water. However, since sanitary regulations cannot be, or rather are not, thoroughly carried out

in a farming community, there is a possibility that this same disease may break out again next year. Should this unfortunately occur, we hope to be in a better position both for investigation and assistance to the people

LEUKEMIA.

By M. P. Overholser, M. D., Harrisonville, Missouri.

Leukemia is a disease of the blood-making organs. "It is characterized by a great and persistent increase of the white blood corpuscles, by a diminished number of the red blood corpuscles, by a lessened amount of hæmoglobin, and by changes in the spleen, lymphatic glands and medulla of the bone. The onset of this disease is often insidious, and, as a rule, the patient seeks advice of a physician for enlarged lymphatic glands, pallor, shortness of breath or other symptoms of anemia, or for a progressive enlargement of the abdomen, or for hemorrhages from various parts of the body." Epistaxis, hæmatemesis, hemoptysis, hæmaturia, hemorrhagic gingivitis, pupura hemorrhagica, numerous and large subcutaneous hemorrhages, are all common symptoms of this disease. Osler reports a case where a boy was able to play at ball two days before the onset of a final hematemesis; also the case of a young girl supposed to be suffering from a slight chlorosis, but who died of fatal hemorrhage from the stomach before any suspicion had been aroused as to the true condition of the patient. The cervical, supra clavicular, axillary, mesenteric and inguinal glands may be much enlarged, and the glands are usually soft, isolated and movable. The spleen and liver, in a great majority of cases are also enlarged. In one case described by Welch, the liver weighed thirteen pounds. There are three distinct varieties of this disease: Chronic myelogenous leukemia, chronic lymphatic leukemia, and acute lymphatic leukemia.

The clinical symptoms of these types of leukemia may differ in a number of respects. However, a positive diagnosis can only be made by a microscopical examination of properly fixed and properly stained blood specimens. A microscopical examination of blood in these cases is of paramount importance, for by its means alone are we able to differentiate the lymphatic type of this disease from Hodgkin's disease, syphilitic or tubercular adenitis and sarcoma af the lymph glands; or the spleno-myelogenous type from malignant growths of the spleen, and enlarged spleen due to malaria or syphilis.

In all varieties of leukemia the increase of the number of the white corpuscles is an essential factor. The blood picture in the two chronic types of leukemia is, however, absolutely different. In the chronic lymphatic leukemia we have an enormous increase in the number of the small non-granular mononuclear leucocytes which are also frequently called lymphocytes. Lymphatic leukemia is, therefore, a leucocytosis of the small mononuclear variety of leucocytes. This leucocytosis differs from the in-

flammatory leucocytosis, in which we find an increase of the polynuclear leucocytes, which are also frequently called the neutrophilic granular leucocytes. In normal blood there are usually about fifteen hundred, or not to exceed twenty-five hundred, of the small mononuclear, non-granular leucocytes to the cubic millimeter of blood. In lymphatic leukemia these corpuscles may be increased to four hundred thousand, or five hundred thousand, and some cases are reported where they have reached the enormous number of over one million to the cubic millimeter of blood. In most all of these cases grave anemia is also found. The red blood corpuscles may be reduced to two million or as low as one million, or even less, and the percentage of hæmoglobin may fall as low, or even lower, than 20 per cent.

In this type of leukemia we find very few, if any, of the abnormal granular leucocytes known as the myelocytes, and also very few, if any, of the nucleated red blood corpuscles known as the normoblasts or megaloblasts.

In the myelogenous type of leukemia a stained specimen of blood gives us an entirely different picture. Here we find great numbers of large, abnormal, granular leucocytes called myelocytes. These myelocytes may be as numerous in this form of leukemia as the lymphocytes are in the lymphatic variety of leukemia. The myelocytes are large, mononuclear leucocytes, and contain large granules in their protoplasm which surround the nucleus. The granules found in most of these myelocytes are neutrophilic in their staining properties and stain purple with Erlich's tri-acid stain. It is, therefore, the mononuclear neutrophilic myelocyte which is found in such large numbers in the spleno-myelogenous type of leukemia. The granules of some of the myelocytes, however, may take the acid stain in preference to the neutral stain and are, therefore, stained a deep red. The myelocytes, whose granules are stained red by an acid stain, are called eosinophilic myelocytes. These myelocytes are much less numerous than the neutrophilic variety in the chronic myelogenous variety of leukemia. Grave anemia is also a marked symptom in this type also, and it is in this form of leukemia where we usually find normoblasts and megaloblasts in goodly numbers.

It is found that the medulla of the bone is one of the primary and chief seats of disease in spleno-myelogenous leukemia, while it is the lymphatic structures of the body in the lymphatic type of leukemia which are found to bear the chief brunt of the disease. A number of interesting and typical cases of leukemia have been recently reported. Gilbert and Weil report three cases of acute leukemia. In one case death occurred in seven weeks. In the second case in one month, and in the third case in fifteen days. McCrea reports a case of lymphatic leukemia in which death occurred in eleven days after the appearance of the onset of the symptoms.

Leukemia may occur at all periods of life, from earliest infancy to advanced years.

Most of the cases of acute lymphatic leukemia occur between the ages of eleven and twenty-four years.

The specific cause of this disease has not been satisfactorily determined. Various infectious diseases have been recorded as determining the occurrence of leukemia. In one hundred and fifty cases studied in this connection by Gowers, thirty gave a history of previous malaria, while in the cases under Osler's observation malaria has been present in one-third of his cases. Syphilis seems, at times, to play a part in its causation, especially the hereditary form in children. Typhoid fever was reported by Immerman as a determining cause in a case of myelogenous leukemia. Recently, Litten and Frankel and others have called the attention of the profession to influenza as a cause of leukemia. Pregnancy, lactation and menstruation seem to exercise a certain influence in the development of the disease. An etiological relation is also traced to rickets and tuberculosis. While the specific cause is not definitely settled, there are many features in this disease which make it probable that it is essentially infectious in its nature. However, if this be the case we have not yet been able to isolate the particular micro-organism producing it.

The prognosis of these cases is always very grave. Very few cases get well. The lymphatic type seems to be more malignant than the splenomedullary type, especially the acute lymphatic form, which may produce death in a few weeks.

The treatment so far has been very unsatisfactory. A few cures of the spleno-myelogenous variety are recently reported by exposing the patient to the x-rays, the treatment being kept up for some weeks.

CONSUMPTION AND ITS CORRECT TREATMENT.

By C. Walker Watts, M. D.

Secretary and Treasurer H. C. Med. Assoc. and V. P. of Missouri for Jeff. Med. Alumni Assoc., Fayette, Missouri.

Tell me, ye winged winds that round my pathway roar;
Tell me, oh, please tell me, some loved spot
Where tuberculosis is felt and feared no more.

The answer comes to this plea:
'Tis not found on this sun-bright shore—
In our Father's garden—where flowers bloom and blossom
Untouched by this tuberculosis blight forever more.

A writer who truly expresses the importance of this subject has given us these words, which every humanitarian will appreciate:

"Five things a man must learn to do,
If he would make his record true:
To think without confusion clearly,
To love his fellow man sincerely,
To act from honest motives purely,
To trust in God and Heaven securely,
To treat his patients tenderly."

We approach this subject with awe and reverence, and we trust with due

regard and respect and esteem for all those who in the past or present centuries have devoted their time, talent and means to the personal investigation of the subject, and their name is almost legion, and with no patience or respect for those who have added confusion and chaos to hearsay evidence, and not a single original idea to produce.

We have only time or space to mention a few of the most prominent men of our profession who have added their part in its elucidation. Europe and America have joined hands and have each vied with the other in its thorough study and investigation. Their names stand out in bold relief on the tablet of fame as worthy of a place among the true heroes of earth, and the victims of consumption will crown their brows with laurels of undying fame. The list we give only furnishes those most prominent. Dr. Koch, of Europe, justly heads the list, as his efforts in Europe have stood the test of the closest scrutiny, and the more we study his great work, the more we love, respect and esteem him and value his original research. Among his colaborers we mention Drs. Widrow, Koenig, Schueller, Von Moesetig, Moorhof, Paul Remoud and Christian Enger, and Prof. Ronx, of Paris. America has her immortal and illustrious Prof. N. Senn, Drs. Knopf, Osler, N. S. Davis and the late Bryson, of our city of St. Louis. Koch and Senn are household words in the home of every surgeon and physician of this day and age, on account of their untiring and ceaseless work in the great field of tuberculosis, while Osler and Bryson have given us great help.

Where is there a family of human beings, bipeds or quadrupeds, animal or vegetable, that has not or does not suffer from the ravages of consumption, which is not cursed or crushed by its fearful blight.

Consumption.—What is it? Where did it come from? Where will it cease? Is it curable?

It is a lesion dependent upon the presence of a specific germ for its origin, a diseased condition produced by a specific bacillus, a process known as tuberculosis; scrofulosis, her twin sister, which, as Prof. Seen justly terms, "a mystic term," differing only in location from tuberculosis.

Consumption, a wasting of tissue due to tubercular processes.

Histology.—It is perhaps the oldest disease in the world. The *Book* of *Books*, the Bible, gives a graphic account of it in the Old and New Testament Scriptures. Read the Books of Leviticus and Isaiah, and the account of it by Dr. St. Luke of the New Testament Scriptures.

It originated, not in the garden of Eden, but very soon thereafter. The lesser and greater prophets describe it with the pen of fire, and tell of the kings and of people who died of it, among whom they mention King Asa, who died of tuberculosis of the lower extremities. Dr. St. Luke, the beloved physician, who followed the wonderful physician, Jesus, who healed the wasted woman who was dying from uterine tuberculosis. The prophet who cried out: "Is there no balm in Gilead? Is there no physician there? Why then is not the health of the daughter of my people recovered?"

It originated almost with creation, and has grown and increased among

men and the lower animals from the first to present century, until its victims are found almost among all races and in every clime of the habitable globe. It has been the theme of more poets and prose writers, of all ancient and modern history, and it has and will continue to employ the best and purest minds of the world in its study and investigation. Its martyrs are not alone among its own victims, but many of our noble profession and trained nurses have given their lives in the pursuit of knowledge and to relieve those affected. One of them, in 1868, said to the writer, when dying from a fearful hemorrhage: "Doctor, I will not live to see the *discovery*, but it will come, I feel it, that consumption will be known, understood and cured." His prophecy, thank God, is being fulfilled forty-four years after. "This germ that is killing me can be killed," were the words of Surgeon F. B. Flore in 1868.

In 1856, by the bedside of one of earth's fairest flowers, we took our first lessons in the clinical study of tuberculosis, as it developed in the person of one whom we expected to lead to the altar, as our life companion. Her photograph graces the desk of our study-room now—under the instruction of Drs. J. J. W. and I. P. V., physician and surgeon—Missouri's best of their day. In 1858 she died of pulmonary tuberculosis. We took a solemn vow at the bedside to make her disease our life study, and, by the help of Almighty God, we have. In 1865 our sister passed away with it, in her young womanhood, nipped by tuberculosis' untimely frost, parched by the fever's hectic ray, she yielded her young life to this unfeeling monster's sway.

In 1882 we had our first pulmonary hemorrhage, in 1894 our last, from the genito-urinary system, and yet we live and *study* tuberculosis. Here would we return thanks for the kindness and help of Professors S. D. Gross, J. Solis Cohen and DaCosta to us in 1866, '7, '8 and '9 and '72, and since then, for Prof. Senn's yearly help. And we owe to these men a debt of gratitude that demands public acknowledgment in our devotion to humanity and duty. In 1867 we were purely, thoroughly and sincerely converted by pathological, macroscopical and microscopical analysis to the germ theory. We have the tubercle obtained then, now in our office. In 1893, the patient from whom we procured it, passed away with tuberculosis of colon and rectum. In 1896 we removed the lower segment of his oldest daughter's rectum for tuberculosis, and she is now, in 1904, apparently well. It affects all races and people.

Morbid Anatomy.—These rods or spores and the stroma in which they are found, have been found in every tissue, fiber, vessel, gland, organ, viscera and membrane of the human body, I believe, excepting the pineal gland, both in the solids and fluids. None are exempt from its invasion. While they may prefer and select the pulmonary tissue, they are, as in scrofulosis, found revelling and playing hide and seek in the joints, glands, and membranes of the brain. We have not time to give special reference to localities or regions, as the profession is well versed in all these.

Forms.—We mention only a few —tubercular meningitis, phthisis pul-

monalis and general tuberculosis of alimentary tract, joints, and wherever there is a muco-serous and synovial membrane, these seem to be the *prima via* of tuberculosis.

Consumption but expresses the *fearful* effects of these tubercles on the entire animal economy.

The great M—— said truly: "It is the accumulation of our experiences that makes our empirical knowledge, at least scientific fact." I prefer the word clinical to empirical, unless we confine its meaning to real scientific and practical research. Thank God we hope to chronicle the death of pseudo empiricism and pseudo empiricists during the twentieth century. It is but the chill of ignorance, culpable and crude superstition of the lowest order.

Pseudo Tuberculosis.—We know not if there be any such thing from experience; we deny not the existence of streptothrix hominis, any more than we do that of streptothrix actinomycosis. Of such this deponent hast no personal experience. It may in the future become under the lens, among the echinococcus celebrity, and thereby populistic. We have only at present *two hundred and four* specimens of the tuberculosis family in our collection of forty-four years. They all belong to the same tuberculosis family. Their morphological character shows the pedigree as plain as the name on the slide. The student can read the facts. Variation in forms and effects depend only in geographical as well as topographical regions affected—all due to the tubercular nodule or germ, as discovered by the earliest and latest writers.

Symptoms.—Gastric, gastro enteric and pulmonic, cough, fever and expectoration, with transpiration—all characteristic of their presence in the body somewhere. As fever in typhoid enteric trouble but indicates the presence of the typhoid bacilli in Pyer's patches and the glands of Lieberkuhn, as well as in the parotid *or a segnel*, but express the stage of irritation, congestion, inflammation, ulceration and perforation, equally so and along the same lines do we follow the symptoms of tuberculosis. In typhoid fever we have the dusky, red spot on each malar bone or one, so does the pneumococcus evidence its presence on the cheek of the pneumonic—so does the increased temperature and hectic fever speak out and tell us of the bacillus tuberculosis in form of pulmonary consumption or tuberculosis enterica; or in the hip, knee or ankle joint speak out of the bacillus tubercles. Early indigestion, dislike to certain foods, early and late cough, sputa excretions and transpirations tell in no uncertain symytoms the presence of the almost universal scourge of the human race. Emaciation, loss of all adipose tissue and the hollow cheeks and *cadaveric* odor speak in sepulchral tones often of his awful presence.

Modes of Invasion.—Infection, hereditary, transmission by coitus, by semen, ovum, blood placenta, *infection* by inoculation, inhalation and inspiration, *invasion* by cohabitation, sputa and excretion, traumatic. We cannot believe fully with Cornet, "The consumptive in himself is almost or altogether harmless or harmful by bad habits." We endorse fully as to the contagiousness and infectiousness of the virus in any

form. The experience of fifty years doth teach us, too, that in eternal vigilance (and of constant watchfulness and care) is the price of success, always acting by watching any avenue of invasion and being *liberal* in our belief. We cannot endorse another great man, who says the breath of the consumptive is not a mode of invasion. We have not time to speak of conditions forming or influencing infection by invasion, such as cities, environment, social, locality, occupation, condition, individual predisposition or physical conformation of body on sex or race or the presence in the system of other diseases, as cancer, etc. We leave them all as known and recognized factors in the mode of invasion. No recognized authority of the twentieth century denies them. Hippocrates, Aretens, Galen, Bishop, Clark, of the first centuries, described them. We have no discussion with skeptics or dogmatic didactic lecturers.

Diagnosis.—The presence of these bacilli in the sputum is infallible evidence of the existence of tuberculosis, also found on the person and in clothes. Excretions and accretions are corroborative, to say the least, both in the acute and chronic form. In galloping, or hasty, consumption they are in abundance.

Inspection, palpation percussion and auscultations assist greatly. Pleuritic adhesions, systolic murmurs, peculiar breathing, cavernous sounds, pleural effusions all enter into a correct diagnosis. With the help of the phonoscope, pleximeter, etc., we can often define and diagram the cavity. Aspirations and expirations are helpful.

With the aids we have by the macroscope, microscope, and all the other family of *scopes*, by urinary analysis, thermometers and blood counters, æsthesiometers, sphygmograph, etc., we are almost without an excuse if we fail on a correct diagnosis in tuberculosis. A quick and correct diagnosis, accurate and clear, is strictly essential to the safety of your patient and to his or her friends. You want to know that as soon as practicable. Let *no daylight burn under your heels* by your blunders and indolence. Call in the x-ray, electric ray and radium ray as consultants if you are in doubt. *Don't* let *doubt* darken the field. Form a *correct diagnosis—if you cannot*, call on some professional brother—and don't be afraid of loss to your own reputation or character—a 2x4 man with but a trace of gray matter is not competent to form a diagnosis. Such men are always jealous, covetous and envious by nature; they can't be otherwise—don't expect a correct anything from them but failure. Any thoroughbred, up-to-date surgeon or physician of this, the twentieth, century, who has had five or ten years' experience, can form a correct diagnosis.

Prognosis of Tuberculosis.—Depends largely on locality, individuality, personality, quantity and quality of the patient and his or her environments.

We declare from experience alone that we fear the la grippe microbe in the middle-aged and old more than we do the tubercular nodule, since the miscegenation and amalgamation of the American influenza, we have a Goliath equal in destructive power to the middle aged, diseased or old aged. The more we study the tubercle, asep-

tics and antiseptics and dietetics, hygienics, etc., the more favorable becomes our prognosis.

We are told by statisticians and authorities, whose veracity is equaled only by their voracity and sagacity, that tuberculosis kills 3,000 every day, and two may die any minute from tuberculosis. These may be facts beyond question, yet we deny the necessity of the death of 10,000,000 every year from it. One-seventh of all the deaths may be due to it. And the majority of the deaths in childhood may still prove it. We are not ready to say, with the celebrated doctor who, in speaking of cerebro spinal meningitis, that it should be called "finally come and take us." Nor do we believe entirely what that wonderful surgeon and physician—superior in diagnosis—Dr. D., once said to us long years ago: "Doctor, it is only those who lack some of the positive symptoms who ever get well." Experience and statistics deny it. We do not beg the question, but simply refer it to *the experience* of any astute surgeon or physician of the twentieth century of even ten years' standing. Anyone who believes with our Prof. Senn and a host of other physicians and surgeons of today, who believe, teach and practice in the light of the fact that regeneration of tissue and reparation of Dame Nature is as possible and probable as regeneration of the soul of man.

Treatment of Consumption.

This may be justly divided into three departments, *preventive*, *hygienic*, *surgical* and *medical*.

Success depends largely upon a correct recognition of the character of the tuberculosis you have in your individual case and judicious use and exercise of judgment, discretion, prudence and common sense in an uncommon degree. We have no patience or use for any routine treatment. In the forty-four years of experience in civil, military, hospital and private practice our notebooks fail to record two cases just exactly alike or that required exactly the same treatment. The successful physician or surgeon recognizes this *axiomatic fact*—that consumption is not to be treated in the parent or offspring exactly alike.

Legal Prevention.—We are glad to note the fact that New York, Pennsylvania, Illinois and in our own state of Missouri laws are being and have been enacted that will result in great good to physicians, surgeons and their consumptive patients, who range in age from the infant days to Laennec's case of the man over ninety-nine years of age.

Legal Prevention is one of our sheet anchors in treatment.

Preventive Treatment. — Inspection by competent persons of *all food*, clothing, nurses and mothers of tubercular patients. Inspection of all rooms and associates of these patients. Inspection of the preparation of all foods and medicines. Examination of all water closets and exclusion of all tuberculous milk, meat, and exclusion of all prepared can foods and prepared foods of all kinds. Exclusion of all septic gases and foul air. Let an appeal for fresh, pure air and water, and plenty of it, be heard and heeded by every lover of humanity. Let antiseptics and aseptic precautions be observed, even to the extreme.

Ventilation and *Cleanliness* are twin sisters and virgins in whom tuberculosis finds but litle friendship or culture. The "rod and the spore" find no helpful stroma in the handmaiden of our Creator. *Respect* and observe them, and let these facts remind you that "The Almighty God, your *Cretor, furnishss them* freely fully and willingly, and requires only your recognition of them. They are godlikeness and godliness. God's temples are the temples for consumptives. *Open air*, free air, pure air; *plenty of it.* The virus of smallpox is not more fatal in close, shut-up wards, rooms or dwellings, than is the virus of tuberculosis, which is visible, tangible, audible, unpalatable, as well as dangerous to the olfactories. Plenty of pure sunlight, *moonlight* and starlight are all preventatives. The use of fresh fish, fowl and all nitrogenous foods, bread, etc., belong to the dietetic as well as the preventive. Don't starve, stifle or founder your patients. Fishing, hunting and swimming enter largely into the treatment. Sleeping out in the open air with the body well protected; but, for God's sake, don't be as afraid of night air as you are of drafts, *ligatures* and marshes and ravines, but get up on the mountain tops and sleep where your patients breathe well. Don't be a fakist, fadist or crankist as to any remedial remedy. Don't be an extremist.

We have often been heartsick and disgusted by doctors who are largely responsible for a great deal of the fatality of tuberculosis, by their willful and culpable neglect in seeing their patients correctly treated and observing these divine laws of prevention. If kindness ever kills, it is by the confinement that friends, relatives and nurses often give to the patient. Some say puppies' eyes are closed by the membrana nectitans until the ninth day. God grant that all surgeons and physicians may get their eyes open now, in the early part of the twentieth century, and their ears open, and be attentive to the cry of suffering patients everywhere who cry daily for relief from oppression, and help these same surgeons and physicians to practice what they believe, in couching the cataractous eyes, ears and minds of relatives, friends and nurses of these suffering ones who die daily from almost total neglect, or, worse still, abuse of the known rules of prophylactic and preventive treatment.

Our Missouri statutes forbid first cousins from marrying. May the next legislature prevent the marriage of consumptives. The license to marry should be accompanied by a physician's certificate as to the condition of the health of the contracting parties. Law is a spontaneity arising out of origin, organization and conditions. Law without a penalty is a nullity, and useless in operation. While tuberculosis severely punishes the offenders, yet to prevent tuberculosis is the object lesson and subject lesson for any jurist and board of health to learn, and his duty to see it enforced.

Isolation of the tuberculosis patient is absolutely necessary—as necessary as in any other contagious or infectious disease we have to contend with.

Destruction by cremation or antiseptics *of all excretions*, sputa, clothing and *dust* of the consumptive's person and room.

Removal to *single beds* is the *sine qua non*. Allow no sleeping together of the infected and non-infected. Let the law and doctor enforce this by line upon line, precept upon precept, here a little and there a great deal.

When human life is more precious than the almighty dollar, when filthy lucre pales and disappears before the approach of the lover of humanity, when *covetous desires* and *mercenary fees* cease to blind the eyes of the proper custodian of health, when doctors love each other, and don't charge each other, and are not jealous, envious or egotistic, the prevention of tuberculosis will soon have been accomplished.

When we recognize that the body is the casket that contains the two precious jewels, Ego and Divine Spirit, we will treat it better and prevent the infection, not by pest houses, but by a due regard for the laws of prevention. The first speech we ever learned was:

"Man's a vapor, full of woes;
Cuts his capers and down he goes."

We hope to live to see man elevate himself to his proper sphere and live forever. The dietician D. O. L. said: "There is no reason why we should not live over a century, if we live well, and duly observe the laws of prevention, and be just translated."

Prevention of tuberculosis depends largely upon the leaders of society and the prevention of undue intimacy and unwarranted social permissions. "Familiarity breeds contempt." So if a kiss from a syphilitic can brand a mucous patch upon the nether lip of a fair one, why may not social approximations terminate in a well-developed tubercle? I challenge the profession to deny it. Experience doth teach it—State of Nebraska prohibiting kissing of married men.—Board of Health.

Hygienic.—Consists in good environments and correct climate, proper clothing and cheerful surroundings and in a proper recognition and adjustment to variations of climates. Don't send your patients off to die among strangers, said the *Sanital*, Dickenson, of South Carolina, but select the climate to suit the case. Don't conform to style and society, but let your word be the law and gospel to parent and patient and friends, said the man of New York. Thank God tubercular patients, many of them, are by nature cheerful and hopeful and charitable and, experience teaches, faithful. Let the culture be one of cheerfulness, and get rid of all long-faced Pharisaical cocci who infest society. Be cheerful and hopeful and mindful of your duty.

We are glad to be able to say with the three advanced thinkers, that the spontaneous healing of local tuberculosis is an every-day affair. We have experienced this helpful fact — so have you.

The Cure of Tuberculosis.

Medical.—Perhaps I can safely assert that our materia medica from absinthium to the zizyphor vulgaris has been exhausted on its demands for *curative* remedies for tuberculosis by the surgeons and physicians of the present and last century, and we may safely say their tedious, arduous and painstaking research, study and labor and experimentation have not

altogether been in vain. The great fields of the animal, vegetable and mineral kingdoms have been thoroughly explored, every corner and crevice, by their seared light, with, often, very happy, pleasant results to their patients. Many have been cured, some relieved, some changed to a state of endurance, to a state of health. We purpose briefly to mention those which have yielded the best results and leave your good judgment and sense to suggest their modus operandi. *Creosote*, so named by "Reichenbeck" and justly called creosote because it is a germicide (*kreas* flesh, *sotos* preserver). It has so proven in all of its forms. It is called the alpha and omega by some in tuberculosis. I will say it justly ranks as alpha, but not always the omega.

Creosote in all of its forms is curative beyond question, guaiacol with all of its derivations, iodine, iodoform, aristol, iron, arsenic, strychnine, nitro-glycerine, codeine, mercury. Among the balsams we mention copaiba, cinnamon, cod liver oil, turpentine and terraline and hydriotic tuberculin, carbolic acid, salol. We believe from a personal experience of long standing the law *similia similibus curantur* often proves true in practice. When you wish to produce caseation, calcification, or sclerosis, we have converted these nodules into these forms to assist nature and surgery in their removal. Electricity by currents and cataphoresis, acupuncture and "Lebenswecker" all are useful by getting the antiseptic into actual contact with the bacilli.

The x-ray, electric and radium rays, colored, etc., will prove in this century great assistants. That which will kill the cancer germ, will surely debilitate if not destroy the tuberculosis germ. Oxygen, hydrogen, nitrogen and chlorine gases also are useful, and sometimes curative and beneficial. We have convalescents now enjoying good health in the east, west, north and south, from the Gulf of Mexico to the coast of Maine, who were cured by some of these medicinal remedies in the last forty-four years. We would also mention blood, burdock, adrenalin, protonuclin, bovinine, peptomangan, mecrotine, cascara sagrada. The scrofulous form yields to syr. ferri rod. et burdock (lappa-major) and guaiacol with wine, whiskey, brandy, white rock candy and glycerine.

Surgical Treatment.—We have left this last for obvious reasons. Combined with correct medicinal treatment, it affords the patient often not only health and safety, but immunity is often the result. The *knife* in the hands of the skillful, tactful, conservative surgeon will often relieve the patient of a *useless*, *morbific* limb, organ, gland or sac, which not only endangers *life* and *limb*, but is a constant source of grief, suffering and danger. Ex.—A noted jurist now occupies the bench in this large city who, in 1893, was relieved of tubercular pericarditis and effusion by a professor of surgery in one operation. A lady now lives and enjoys good health not far from here who had pulmonary tuberculosis and uterine carcinoma. Her physician cured the tuberculosis and the surgeon removed the intra-vaginal tract of uterus. The surgeon, by aspiration, injection, incision and excision, can often remove the products of tuberculosis and re-

store function and use of what he leaves. Time and space would fail me in giving even an outline of the wonderful victories that have crowned the heroic, brave surgeon and patient who have thought clearly and acted bravely and been blessed sincerely by God and humanity.

Gentlemen of the profession, allow me to thank you kindly for your forbearance and attention. Let us all quit putting on agony—putting on style—as all the people are doing all the while. Let us all get down to united study, action and work and fight tuberculosis until we have conquered it and banished it from the shores of fair America. Our brethren across the water have already engaged successfully in the battle, and extend to us the helping hand. United we stand, divided we fall.

May the full blaze of advancement, progress and enlightenment of this twentieth century banish egotism, jealousy, envy, develop healthful competition and fully destroy tuberculosis in all its forms. May we be as successful in this as we have been with other antitoxines in inoculations as taught by Koch, Senn, Pasteur and others in tetanus, diphtheria, hydrophobia and anthrax and glanders. With such able men as Senn and Davis and Doler to help us, we may expect and hope for it.

JOURNAL

MISSOURI STATE MEDICAL ASSOCIATION

The official organ of the State Association and Affiliated County Societies. Published monthly under the supervision of the Publishing Committee.

PUBLICATION OFFICE, 534 N. VANDEVENTER AVE.

VOL. I. FEBRUARY, 1905. No. 8.

PUBLICATION COMMITTEE.

C. M. NICHOLSON, Editor.

ASSOCIATE EDITORS.

C. LESTER HALL. WOODSON MOSS, ROBERT T. SLOAN.
F. J. LUTZ, M. P. OVERHOLSER, L. A. TODD.

REPORTERS OF COUNTY SOCIETIES.

ATCHISON COUNTY—A. McMichael, M. D., Rockport.
AUDRAIN COUNTY—C. A. Rothwell, M. D., Mexico.
BATES COUNTY—C. N. Chastain, Rich Hill.
BOONE COUNTY—J. M. Fisher, M. D., Columbia.
BUCHANAN COUNTY—L. A. Todd, St. Joe.
BUTLER COUNTY—J. J. Norwine, M. D., Poplar Bluff.
CALDWELL COUNTY—Tinsley Brown, M. D., Hamilton.
CALLAWAY COUNTY—M. Yates, M. D., Fulton.
CAMDEN COUNTY—G. T. Myers, M. D., Macks Creek.
CARROLL COUNTY—R. F. Cook, M. D., Carrollton.
CASS COUNTY—J. S. Triplett, M. D., Harrisonville.
CHARITON COUNTY—C. A. Jennings, M. D., Salisbury.
CLARK COUNTY—A. C. Bridges, M. D., Kahoka.
CLAY COUNTY—F. H. Matthews, M. D., Liberty.
COLE COUNTY—G. Ettmueller, M. D., Jefferson City.
CRAWFORD COUNTY—A. H. HORN, Steelville.
CURRENT RIVER—Frank Hyde, M. D., Eminence.
DAVIESS COUNTY—M. A. Smith, M. D., Gallatin.
GRUNDY COUNTY—Everett Allen, M. D., Hickory.
HENRY COUNTY—F. M. Douglas, M. D., Clinton.
HOWARD COUNTY—C. W. Watts, M. D., Fayette.
HOWELL COUNTY—H. C. Shutte, M. D., West Plains.
HOLT COUNTY—W. C. Proud, M. D.
IRON COUNTY—Ira A. Marshall, Ironton.
JACKSON COUNTY—E. L. Chambliss, Kansas City.
JASPER COUNTY—C. C. Cummings, M. D., Joplin.
JOHNSON COUNTY—E. H. Gilbert, Warrensburg.
JOHN T. HODGEN—H. A. Rhoades, M. D., Foster.
LACLEDE COUNTY—J. A. McComb, M. D., Lebanon.
LINN COUNTY—D. F. Howard, M. D., Brookfield.
LIVINGSTON COUNTY—H. M. Grace, M. D., Chillicothe.
MCDONALD COUNTY—M. L. Sellers, M. D., Anderson.
MACON COUNTY—A. B. Miller, M. D., Macon.
MARION COUNTY—H. L. Banks, M. D., Hannibal.
MARIES COUNTY—Otto N. Schudde, M. D., Vienna.
MILLER COUNTY—G. D. Walker, M. D., Eldon.
MISSISSIPPI COUNTY—W. P. Howle, Charleston.
MONITEAU COUNTY—W. R. Patterson, M. D., Tipton.
MONROE COUNTY—W. B. A. McNutt, Monroe City.
MORGAN COUNTY—John T. Beale, M. D., Versailles.
NODAWAY COUNTY—F. R. Anthony, M. D., Maryville.
PETTIS COUNTY—W. S. Shirk, M. D., Sedalia.
PHELPS COUNTY—S. L. Baysinger, M. D., Rolla.
PLATTE COUNTY—G. C. Coffey, M. D., Farley.
PUTNAM COUNTY—J. A. Townsend, Unionville.
RANDOLPH COUNTY—D. A. Barnhart, Huntsville.
RAY COUNTY—C. B. Shotwell, M. D., Richmond.
REYNOLDS COUNTY—T. W. Chilton, M. D., Corridon.
SALINE COUNTY—D. E. Bell, M. D., Marshall.
ST. CLAIR COUNTY—E. D. Miles, M. D., Osceola.
ST. LOUIS—T. A. Hopkins, M. D., St. Louis.
ST. LOUIS COUNTY—H. G. Wyer, M. D., Kirkwood.
SCHUYLER COUNTY—H. E. Gerwig, M. D., Downing.
SCOTLAND COUNTY—O. F. Pile, M. D., Memphis.
SHELBY COUNTY—L. W. Dallas, M. D., Hunnewell.
STODDARD COUNTY—O. F. Pile, Memphis.
SULLIVAN COUNTY—G. S. Milnes, M. D., Milan.

EDITORIAL.

THE BLUE BOOK.

During the coming spring the American Medical Association will publish a medical directory containing the names of all members of the state and territorial associations. In the January issue of this journal appeared an alphabetical list of the members of the Missouri State Medical Association. This list, with the addition of such information as may be obtained from the card index in the office of the secretary of the State Association, will be forwarded to the American Medical Association for publication in the national directory. If there are any additions or corrections they should be made by secretary of the county society without delay. The blue book will contain the cream of the medical profession of the United States.

CITY HOSPITAL ALUMNI.

Thursday evening, the 7th of January, the Alumni Association of the City Hospital gave their annual banquet at the Mercantile Club. The attendance was large and the occasion furnished an opportunity for those who had been connected with one of the city medical institutions to talk over old times. The event of the evening was a paper by the incoming president, Dr. John Green, Jr. His criticism of the method of conducting our City Hospital met with the hearty approval of most of the members present. The fact was pointed out that in all other large cities of the United States the hospitals maintained at public expense were provided with an attending staff who performed all major operations, made all the diagnoses and directed all treatment. This staff was selected from the profession, and included the most able practitioners, men who had spent many years in becoming thoroughly fitted for the special work in the direction assigned. As a result the internes had the advantage of post graduate instruction, and the city's charity were attended by the ablest men in the medical profession. In other words, a charity hospital should not be conducted for the benefit of the superintendent (who should be a layman), but for the benefit of the city's charity and the medical profession.

ANNUAL DUES.

The secretary of the County Medical Society is expected to forward the annual dues for each member of his society to the secretary of the State Medical Association. The dues are payable on January 1st of each year. Any member who shall fail to pay his annual dues by April 1st, shall be held as suspended without action on the part of the society.

Dues to the State Medical Association cannot be received except through the secretary of the county society, who must report all members and forward dues for each.

DR. RIXEY'S REPORT.

The report of Dr. Rixey, the surgeon general of the United States army, for the fiscal year ending June 30, 1904, has recently been issued. Since more careful attention has been given to sanitary matters the health of the army has been improved. The portion of the report which will give the greatest satisfaction is that which refers to the decrease of cholera in the Philippine Islands. This favorable state of affairs is undoubtedly due to the untiring efforts of the army medical officers in preventing its spread among the troops serving at the island station.

Improved health conditions prevailing among the United States troops is almost entirely owing to the advance made in sanitary matters since the war. Typhoid and malarial fevers show a gratifying decrease. The prevalence of tuberculosis varied but little from that of previous years. There were 636 cases of beri-beri, almost entirely confined to the Philippine soldiers, while of bubonic plague in 1903 there was not a single case. A reduction in intestinal affection among the troops was noticed. Insanity was less prevalent in 1903 than in any other year.

COUNTY MEDICAL SOCIETIES.

There are now seventy county medical societies in affiliation with the State Medical Association. The work of organization is progressing in a most satisfactory manner, not only new societies being added to the list each month, but individual societies are increasing in membership. Two or three are at a standstill and one has failed to have a meeting during the past six months. The question has been asked, What can be done to enthuse interest in the meetings of the county societies? The answer is, make them more interesting. It is a very simple matter to say what should be done, but quite another thing to get the work done. This applies very emphatically to the work of keeping up county societies. Dr. George H. Simmons says: "Successful county society work, outside of the popular centers, depends on the secretary of the state association, on the councillors, on the secretary of the county society and on the members. I have put them in the order of most importance.

"If the secretary of the state association is very active, and will sacrifice himself sufficiently, he can do more than any other one individual. In fact, whenever the state association has a poor secretary, poor work will almost surely result.

"Next come the councillors. In my estimation, the councillor system is the most important part of our organization work, for the reason that it throws on one man the responsibility of certain counties. This responsibility consists in his keeping in close touch with what his societies are doing, visiting them occasionally and making suggestions to them as to how the organization can be made more effective."

It must be stated as an axiom that a society whose average attendance is less than ten will die a natural death, as far as scientific work is concerned, unless outsiders come in and infuse new thoughts and new interest. If this is recognized and acted on, the societies now dormant will become active. I know of no society, large or small, that is successful, that does not invite outsiders to read papers or address them occasionally. The Chicago Medical Society, the largest local society in the world, has quite often on its program some one from outside of the state; and if it is necessary for the Chicago Medical Society to do this, how much more necessary is it for the little societies that have so few men connected with them who are able to read papers? The councillor should realize this, and should try to get some men in his territory who will volunteer to read papers before different societies. There will be some in each district who will be willing to go to other districts, and, consequently, it would be a good plan if each of the councillors would get a list of the men in his territory and form a kind of "lecture bureau," if we may call it such, giving the titles of the papers and how far from home they are willing to go. These men should be encouraged to write good papers by the promise that they should have a chance to read them at a number of meetings. This would be a good thing for them, because they would perfect themselves in the subject through hearing discussions of it; but, above all, it would be a

good thing for the society before which the paper is read.

In my estimation, carrying out this idea systematically will enthuse interest into all the societies in our state.

THE FAR EAST.

Efforts in behalf of international peace will have the hearty endorsement of the medical profession when it is known how supremely horrible modern war has become as exemplified at Port Arthur. According to press dispatches, when the surrender of the city came 20,000 of its inhabitants were sick; 11,000 Russian soldiers had perished during the siege; hundreds of peaceable citizens had lost their lives; hundreds of persons were suffering from the dread disease beri-beri; every man in the trenches had been wounded from one to six times; the place was a shambles, men fighting each other like wild beasts. As for the hospitals, no word can adequately picture their horrors. They were worse than the battlefield; they were gorged with broken, shell-torn bodies. A nauseating odor poisoned the air of the wards, and even sickened the sisters of charity, accustomed as they were to such experiences.

OBITUARY.

Dr. Charles Brockhausen died at the age of sixty-one years and four months, at his home in Hermann, Monday night, December 19th, death resulting from a fracture of the skull, caused by a fall. He was born in 1843 in Bloomberg, Lippe Detmold, Germany. When twenty years of age he came to St. Louis, entering the employ, as druggist, of Dr. Louis Schlade. Here he studied medicine, and later entered the St. Louis Medical College, taking his degree in 1871. In the city hospital he served as assistant physician during the cholera epidemic. After a post-graduate course in New York he began practice at Berger, Missouri. In 1893 he moved to Hermann, where he continued in active practice up to the time of his death.

PROPHYLAXIS OF MALARIA.

Since it has been demonstrated that the malarial fevers are due to an animal parasite transmitted from one person to another through the intermediation of certain mosquitoes, it can be comprehended that the only connection between malaria and bad air resides in the fact that emanations from decomposing vegetable matter takes place under conditions that favor the propagation of the intermediating mosquito. In view of the facts as they have been demonstrated, it should be scarcely, if at all, more difficult to eradicate malaria than it has been possible so to do with yellow fever in Havana. Indeed, the task should be even simpler, inasmuch as in quinine we possess a specific remedy against the disease that has also considerable prophylactic value.

The means of prevention based on the known facts must consist (1) in the vigorous treatment of all individuals suffering from malarial fevers, thus eliminating sources of infection; (2) in destruction of the parasite-bearing mosquitoes, and (3) in case of failure to destroy the mosquitoes, in protecting healthy persons from their bites. A most interesting discussion on this subject was held in

the section of tropical diseases at the meeting of the British Medical Association, recently held at Oxford, and participated in by a number of experts, who spoke authoritatively from personal observation.

Dr. J. W. Stephens (*British Medical Journal*, September 17, 1904) laid emphasis on the fact that only certain species of anopheles acted as the intermediate host and carrier of the malarial parasite, and that the species varies in different localities. In conformity with this fact, the measures to be employed for the eradication of the breeding places of the pathogenic mosquito will vary in accordance with the species and its individual habits. In contradiction of a somewhat prevalent fallacy, Stephens and Christopher found that the normal flight of anopheles is a matter of only some hundred yards and not miles, and the intensity of infection and the danger therefrom grow gradually less as the distance from the breeding grounds increases, disappearing ordinarily at a distance of about one mile.

The methods of prophylaxis to be enforced are (1) antilarcal, (2) mechanical, (3) medicinal and (4) segregatory. The first consists in systematic drainage, as a result of which the breeding places of the larvæ are removed. Petrolage, or the covering of the surface of a collection of water with petroleum, can be considered only as a temporary expedient and not as an ultimate means of eradication. Mechanical prophylaxis consists in the use of wire screens, mosquito netting, veils, gloves and similar means of preventing the access of mosquitoes to both the sick and the healthy. Medicinal prophylaxis consists in the administration of quinine in suitable dosage to individuals exposed to the danger of infection with malaria. Finally, separation of the sick from the well has been recommended in tropical countries, with the object of avoiding such exposure.

Only by the intelligent application of the foregoing measure is it possible to diminish on any large scale the prevalence of the malarial fevers, and evidence is not wanting of their practical efficacy.—Editorial in *Journal of the American Medical Association*, November 26, 1904.

HAY FEVER—THE SITUATION AS REGARDS THE SERUM TREATMENTS OF.

The exasperating resistance to treatment of the disease commonly known as hay fever, makes it one of the most interesting subjects to the practitioner. The great interest shown of late in the serum treatment, and the present visit to this country of Dr. William Dunbar, who is a native of this country, and whose serum is being used so extensively for hay fever, make it of interest to review briefly some of the facts that have previously appeared.

The disease has been described under a variety of names—summer catarrh, hay fever, hay asthma, pollen catarrh, rose cold, June cold, concert cold, railroad fever, sun fever, dust fever, autumnal catarrh, and peach cold. Many theories have been put forward to explain the phenomena of the affection. The pollen theory, especially supported by Blackley, was one of the earliest. The heat theory, the light theory, the nervous and other theories are familiar to all.

Gradually the view became widespread that at least two factors are concerned in the etiology—a predisposition and an exciting cause. The theory of a bacterial origin found many supporters. Dunbar began by searching for a causal bacterium, but in the course of his studies became convinced that the disease is not due to bacteria, but to the irritative effect of pollen on the mucous membrane of susceptible persons.

Dunbar, in several papers, has detailed the progress of his studies. Suffice it to say here, that his experiments indicate that it is neither the mechanical action of the pollen grains themselves nor any oily or volatile constituent of them which sets up an attack, but, instead, some proteid constituent of the nature of a toxalbumin. Of the pollens prevalent at the time of the early summer catarrh, or hay fever proper, those of rye and maize contain the poison in largest quantities. In the autumnal catarrh of this country, golden-rod (Solidago), ragweed (Ambrosia), and wormwood (Artemisia) have been held responsible. As little as 1-40,000 of a milligram of the rye-pollen toxin placed in the conjunctival sac will call forth, in susceptible individuals, a paroxysm of hay fever lasting several hours. This quantity of toxin corresponds to only two or three pollen granules. Dunbar asserts that, while the toxalbumin constantly calls forth an attack in susceptible persons, it is without effect when instilled into the eyes or placed on the nasal mucous membrane of nonsusceptible individuals. Liefman proved that during the hay fever period in Germany there is more than enough pollen in the air to account for the toxic effects on hay fever patients, his researches thus confirming the earlier ideas of Blackley. He has shown also that on days when hay fever patients suffer greatly, there is more pollen in the air than on days when they are relatively free from symptoms.

Dunbar found on mixing the toxalbum in with the serum of animals which had been previously treated with pollen or the extracted poison, that the former was rendered innocuous. Unlike diphtheria antitoxin, the hay fever serum is not to be used subcutaneously, for subcutaneous injections give rise to unpleasant symptoms — itching, swelling, and erythema. Experiments have shown that the local application of the serum to the irritated mucous membrane is more effective than its introduction hypodermically.

The serum has been patented under the name of "pollantin" in Germany, England and the United States. To the liquid serum one-fourth per cent. phenol is added, but this amount is not sufficient to delay bacterial growth if the bottle has been opened and contaminated. Some people, too, have an idiosyncrasy for phenol, and cannot bear the application even of minute amounts. Instead of the pollant in liquid, the substance is now supplied preferably in the form of pollantin powder, the latter being obtained by evaporating the serum to dryness, powdering it finely, and mixing it with a little milk sugar. It is maintained that the substance is entirely harmless even in large doses. A single dose, it is emphasized, does not completely immunize the patient

against all further attacks. On the contrary, during the hay fever season the treatment has to be resorted to frequently, best every morning, just before rising. Used in this way it will, it is said, keep a patient free from attacks for several hours, sometimes for the whole day, even when he spends it in the open air.

This new method of treatment of hay fever, originating in laboratory experiment, is rapidly being submitted to the test of clinical experience. In this country we have reports from Mayer, MacCoy and Somers, and the articles of Bailey, Lockwood, Henderson and Dupuy also deal with the subject. The most complete review of clinical work thus far is that of Lubbert and Prausnitz. They have collected some 222 cases of ordinary hay fever cases; 127 are said to have yielded a favorable result, 71 a partly favorable result, and in 24 the result was negative. That is to say, in 57 per cent. of the cases marked relief was obtained, in 32 per cent. the relief was more or less marked, and in 11 per cent. no benefit was derived. Of the 63 cases of autumnal catarrh 44 (or 70 per cent.) yielded positive results, 12 (or 19 per cent.) partly positive, and 7 (or 11 per cent.) negative. In view of the short time which has elapsed since this attempt at rational therapy has been begun, and considering the difficulty which physicians have in such a treatment in inducing patients to follow directions strictly, the results thus far gained must be regarded as favorable.

The whole question of the value of the treatment is as yet, however, in the experimental stage. In a disease like hay fever, where at least in a large majority of the cases an over sensitive nervous system plays an important role, the greatest care must be exercised, especially in the judgment of the effects of therapeutic measures. A much larger mass of clinical evidence must be awaited before the matter can positively be pronounced upon. The disease is so widespread, however, and measures which are purely suggestive are, as a rule, so short-lived that we can be tolerably sure in the course of the next few summers of arriving at definite conclusions regarding the efficacy of the serum treatment.

A word as to the commercial exploitation of the serum. Pollantin, as has been mentioned above, has been patented. Very vigorous business methods are being utilized to sell it. In Germany medical men think it no breach of medical ethics to patent a new remedy. Physicians feel differently about these matters in America. Should the serum treatment ultimately prove to be positively efficacious in the treatment of hay fever, it is highly desirable that it be furnished to the great host of sufferers at a nominal cost and not for purely commercial gain.—Editorial in *Journal of the American Medical Association*, October 15, 1904.

NEW MEMBERS RECEIVED.

Tarlton, G. W., Cape Girardeau.
Cunningham, H. L., Cape Girardeau.
Dalton, R. R., Cape Girardeau.
Rosenthal, M., Cape Girardeau.
Schulz, G. B., Cape Girardeau.
Porterfield, J. D. jr., Cape Girardeau.
Brooks, J. Frank, Cape Girardeau.
Howard, W. N., Cape Girardeau.

Wichterich, R. F., Cape Girardeau.
Statler, W. K., Oak Ridge.
Henderson, R. F., Jackson.
Porterfield, Elmo, Cape Girardeau.
Hart, A. E., Dutch Town.
Higdom, E. E., Allenville.
Hodges, J. J., Granby.
Harrison, G. W., Newtonia.
Brown, W. D., Newtonia.
Hancock, J. B., Newtonia.
Chapman, U. B., Diamond.
Bridges, J. M., Tipton Ford.
Lamson, J. W., Neosho.
Yates, Paul C., Neosho.
Maas, A., Neosho.
Benton, A. W., Neosho.
Lamson, R. C., Neosho.
Cravens, W. A., Granby.
Porter, H. L., Seneca.
Langley, J. W., Granby.
Russell, S. A., Stella.
Roseberry, C. M., Neosho.
Bowers, H., Neosho.
Mixer, A. M., Neosho.
Cleave, C. T., Neosho.
Foster, H. F., Neosho.
Willis, R. L., Neosho.
Campbell, Wm., Seneca.
Maurice Andre, St. Genevieve.
Hertic, C. J., St. Genevieve.
Hinch, F. E., St. Genevieve.
Lanning, R. W., St. Genevieve.
Rutledge, G. M., St. Genevieve.
Meyer, A. G., St. Genevieve.
Moore, C., St. Mary.
Burgess, L. D., St. Mary.
Morganstein, H. J., Weingarten.
Counts, H. J., Ulam.
Forsythe, Robert C., Kirkwood.
Slaughter, S. C., Fredericktown.
Barron, W. H., Mine La Motte.
Epperly, R. G., Prairie Hill.
Wale, D. V., Carthage.
Harrutun, M. B,. Joplin.
Freeland, P. L., Joplin.
McBride, C. E., Webb City.
Rogers, W. H., Ashburg.
Coil, P. E., Mexico.
Lanier, Herbert, Martinsburg.
Baker, Charles, Santa Fe.
Blankenship, W. R., Madison.
Carger, F. H., Madison.
Winters, W. S., Asherville.
Wilson, Eli, Leora.
Cline, B. J., Ardeola.
Gale, F. W., Marquand.
Hudson, T. M., Perryville.
Blaylock, G. N., Silver Lake.
Bowman, C. B. Longtown.
Clark, J. P., Perryville.
Estel, T. F., Atlenberg.
Garner, K. C., Crosstown.
Hatcher, W. H., Perryville.
Manning, L. R., Brewer.
Morton, D. F., Perryville.
Russell, J. W., Longtown.
Vessells, F. M., Perryville.
Montgomery, John S., Milan.
Cooper, C. C., Rolla.
Haller, E. C., Harrisburg.
Lewis, C. O., Fayette.
Bonham, V. Q., New Franklin.

NEWS ITEMS.

Dr. J. H. Musser, president of the American Medical Association, at the request of the secretary of the International Medical Congress, which meets in Lisbon in 1906, and on approval of the House of Delegates, has appointed the following members of the American Committee of Arrangements: Drs. Frank Billings, Chicago; Herman M. Biggs, New York; Herbert L. Borell, Massachusetts; William T. Councilman, Boston; William H. Carmalt, Connecticut; Richard C. Cabot, Massachusetts; N. S. Davis, Jr., Illinois; Charles H. Frazier, Philadelphia; R. H. Fritz, Massachusetts; W. E. Fischel, Missouri; Charles Lyman Greene, Minnesota; Ramon Guiteras, New York; H. A. Hare, Pennsylvania; L. Hektoen, Chicago; Edward Jackson, Denver; E. J. Janeway, New York; A. Jacobi, New York; George B. Johnston, Richmond, Virginia; W. W. Keen, Philadelphia; Howard A. Kelly, Baltimore; Charles Kollock, South Carolina; L. S. McMurtry, Louisville, Kentucky; James H. McBride, California; A. T. McCormack, Bowling Green, Kentucky; K. A. Mackenzie, Portland, Oregon; John Herr Musser, Philadelphia; J. B. Murphy, Chicago; R. Matas, New Orleans; William Osler, Baltimore; Charles Powers, Colorado; J. B. Roberts, Pennsylvania; W. L. Rodman, Pennsylvania; M. H. Richardson, Boston; Charles A. L. Reed, Ohio; H. M. Sherman, San Francisco; Frederick C. Shattuck, Boston; George H. Simmons, Chicago; Charles G. Stockton, New York; George Sternberg, Washington, D. C.; Victory Vaughan, Ann Arbor; John A. Witherspoon, Tennessee; J. Collins Warren, Massachusetts; J. C. Webster, Chicago; William H. Welch, Baltimore; John A. Wyeth, New York. The surgeons-general of the army, navy and United States public health and marine-hospital service. The presidents of the American Dermatological, Laryngological, Surgical, Climatological, Neurological, Medico-Psychological and Orthopedic Associations. The presidents of the Association of American Anatomists, Association of American Physicians, American Association of Genito-Urinary Surgeons, American Association of Pathologists and Bacteriologists, New York Academy of Medicine; College of Physicians, Philadelphia; Cook County Medical Society, Chicago, and the Society of Medical Improvement, Boston.

The Cuban house of representatives on December 14th passed the bill appropriating $190,000 for the sanitation of the streets of Santiago, Cienfuegos, Cardenas and Matanzas. The work is to be done in connection with the request of the United States and the recommendation of President Palma, under the direction of the general government. While the representatives of the United States were concerned essentially with the sanitary conditions of the principal ports, it is expected that President Palma's recommendation for supervision of sanitary matters in all the towns will be embodied later in a comprehensive law.

The following is the clause relating to hospitals in the agreement between this country and Panama, recently signed by Secretary Taft: "The United States will construct, maintain and conduct a hospital or hospitals, either in the canal zone or in the territory of the republic, at its option, for the treatment of persons insane or afflicted with the disease of leprosy and any indigent sick, and the United States will accept for treatment therein such persons of said classes as the republic may request, but this order shall not be operative unless (1) the Republic of Panama shall furnish, without cost, the requisite lands for said purposes, if the United States shall locate such hospital or hospitals in the territory of the republic; and (2), that the republic shall contribute and pay to the United States a reasonable daily per capita charge in respect of each patient entering upon the request of the republic, to be fixed by the secretary of war of the United States.

Medical boxes to be used for first aid to the injured by the Pennsylvania Railroad are being sent out to various points from Altoona. The boxes are wooden and oblong in shape, eight by five inches. Each is sealed, with written instruction on the outside. Inside is a tin box, securely sealed, with more instructions. When the inner box is once opened it must not be used again, but must be returned to Altoona to be fumigated and additional materials inserted. The box contains rubber bandages, compressors and other material used in the first aid process.

The new tuberculosis building at the Johns Hopkins Hospital, adjoining the general dispensary, will be formally opened about January 15. It is the gift of Mr. Henry Phipps, of Pittsburg, who gave $20,000 last winter, through Dr. Osler, for a separate dispensary for tuberculous patients. The building is two stories high. It will be equipped with a special library on tuberculosis. The walls are of brick and are painted with white enamel paint and the floors are treated with a nonabsorbent preparation. The Lænnec Society will have charge of the exercises at the opening. For several years special provision has been made in the general dispensary for the treatment and visiting of tuberculous patients through the generous gifts of two Baltimore ladies.

During the month of October the assistant medical inspectors of the Philadelphia schools examined 43,722 school children and excluded 1,502, or about 3.8 per cent. Of this number six were excluded for diphtheria, nine for scarlet fever, ninety-seven who had been in immediate contact with cases of scarlet fever, seventeen for chickenpox, nine for mumps and seven for trachoma. There were 364 children sent home because of pediculosis capitis, thirty because of itch, 134 because of impetigo contagiosa, seventeen because of favus, eighty-eight because of acute, non-contagious inflammation of the eyes, eighty-eight because of ring worm, nineteen because of suppuration of the ears, 316 for more or less serious defects of vision and 134 for unsatisfactory vaccination.

Dr. Yamei Kin, an American graduate in medicine, born in China, has lectured in Cleveland on the Empress Dowager of China, and will probably repeat the discourse in other cities. She speaks Chinese, Japanese and English fluently.

Giovanni Grizoni believes that the most rational treatment for erysipelas is serotherapy. The failures in this treatment are due to the technique used in the preparation of the serum used. The streptococci, producing different cases of inflammation, seem to differ in species, so that it is necessary to use a serum prepared from a case of the same type to get the desired effect or to make one by inoculation of several species of streptococci. The use of the serum too late or in insufficient doses may account for some failures. In a very severe case of infection observed by the author the use of serum had a really marvelous effect. The patient was affected first by tonsillitis, then by erysipelas of the face, extending to the neck and scalp, then by purulent otitis media. Meningitic symptoms came on rapidly, and the patient was in coma and almost moribund when the first serum injection was given. In all four injections were made, and the improvement was immediate and rapid, ending in complete recovery. The short duration of incubation and and rapid diffusion showed the gravity of the infection.

Should the development of the study of toxins and antitoxins render possible the production of an antibody capable of neutralizing the results of muscular fatigue, the consequences could hardly be predicted. Yet a German investigator seriously claims to have taken more than one step in this direction already, and publishes results that are at least surprising. Weichardt (*Munchener medizinische Wochenschrift*, November, 29, 1904) says he has obtained a stable antitoxin, which, when taken by the mouth in moderate doses, permits the output of an increased amount of muscular energy without fatigue, and when taken continuously causes a sense of general *bien etre*, and augments the capacity for work. He commends his preparation to clinicians as a promising analeptic for convalescents, neurasthenics, etc. This fatigue antitoxin is obtained from horses by injecting them with fatigue toxin produced in the muscles of animals that have been subjected to extreme muscular exhaustion. The most rigid precautions are necessary to avoid bacterial contamination during the process of extraction, and the muscle extract, or toxin, is purified from the ordinary products of muscular activity by dialysis. It can then, under certain precautions, be dried and preserved for a short time, but rapidly loses its potency, in distinction to the antitoxin, which may be kept indefinitely. Minute amounts of this body injected into small animals, as mice, rabbits or guinea pigs, cause all the symptoms of fatigue, and in case the dose is sufficiently large, the substance occasions the death of the animal. Control experiments show that the extract obtained from unfatigued animals, killed without any struggling, is without physiological effect, proving that the toxin produces an antibody which differs from the bacterial

antibodies in that it is absorption when introduced into the stomach. The effect of the toxin on experiment animals may be neutralized by mixing toxin and antitoxin before administration, or the animal may be protected by preliminary injections or feeding of the antitoxin. The antitoxin appears to be much more powerful than the toxin, as it requires only 1-10 mg. to neutralize 10 mg. of the fresh toxin.

At a meeting of physicians recently held at the Great Northern Hotel, Chicago, preliminary steps were taken for the organization of the Illinois Society for the Prevention of Tuberculosis. The plan is to concentrate the efforts of the state board of health, the Illinois Medical Society and the committee on tuberculosis of the Visiting Nurses' Association of Chicago. The first work of the society will be to secure a $250,000 appropriation for a state sanatorium, where researches can be conducted and consumptives treated. The next step will be to establish branches. Particular attention will be devoted to out-of-doors camps. Dr. George W. Webster, president of the state board of health, presided, and Dr. Arnold C. Klebs offered a resolution providing for the appointment of a committee of ten to draft by-laws and constitution and to prepare a list of candidates for directors to represent all committees and interested organizations. The matter was settled by the appointment of the following organization committee: Drs. Arnold C. Klebs, William E. Quine, Charles L. Mix, J. W. Pettit, George W. Webster, N. S. Davis, Ludwig Hektoen, Frank Billings, William A. Evans, Robert H. Babcock, N. A. Graves, N. P. Bicknell, Sherman C. Kingsley, N. B. Delamater.

The Chicago Medical Society has undertaken to deliver a series of public lectures on popular medical topics, and last week a lecture on "How to Prevent Consumption" was delivered by Dr. William E. Quine, and one by Dr. James M. Brown, entitled, "Minor Accidents, Frost Bites and Burns."

The instruction committee of the board of education of St. Louis has recommended the adoption of a plan which they hope will result in saving the eyes of first-year kindergarten pupils in the public schools, by shortening the time allotted to writing. Teachers have reported to the committee that too close attention to writing by the small pupils seems to be injurious to the eyes, and the plan is to shorten the writing periods and give the little ones some sort of manual work which will not cause a strain on the eyes, yet at the same time prove instructive.

The Cuban house of representatives recently passed a bill appropriating $190,000 for the sanitation of Santiago, Cienfuegoes, Cardenas and Matanzas. The senate amended this bill by increasing the amount of the appropriation to $326,000 and adding ten more towns to the original four cities where improvements are to be made in the sanitary arrangements. This action of the senate postpones the final settlement of the matter until congress convenes again next month.

In the course of the debate on the bill some sarcastic remarks were indulged in by several of the speakers, who said the condition of the streets in many cities of the United States was worse than those of Cuba. Many Cubans, who this year visited St. Louis, they said, could testify that the streets of New Orleans were in much worse condition than those of any Cuban town.

Frederick T. Lord has performed a number of interesting experiments with flies and tuberculous sputum. He concludes that flies may ingest tuberculous sputum, and excrete tubercle bacilli, the virulence of which may last at least fifteen days. Bacilli appeared in the stools within at least eighteen hours after the ingestion of of the tuberculous sputum. The number of bacilli in each microscopic field increased from about ten in the original sputum, to 150 in the specks. Paraffin sections were made from many flies fed on tuberculous sputum, and tubercle bacilli were found in the intestinal contents of all. No invasion of other parts of the body could be determined. The bacilli in the specks were much larger than those in the original sputum, and showed some evidence of apparent branching. The writer believes that it is probable that the usual contagion of tuberculosis is not by the ingestion of infected food, but by the drying and distribution as dust of infected material through the air. The danger of human infection from tuberculous fly specks is by the ingestion of the specks on food. Spontaneous liberation of tubercle bacilli from fly specks is unlikely. If mechanically disturbed, infection of the surrounding air may occur. The writer states that he has often noted the eagerness with which flies feed on sputum, even when other food is accessible. He has no doubt that flies play a part in cases of primary tuberculosis of the intestines, or the mesenteric lymph glands in man, due to the ingested infected food. The writer suggests in conclusion that tuberculous material (sputum, pus from discharging sinuses, fæcal matter from patients with intestinal tuberculosis, etc.), should be carefully protected from flies, lest they act as disseminators of the tubercle bacilli. During the fly season, greater attention should be paid to the screening of rooms, and hospital wards containing patients with tuberculosis, and laboratories where tuberculous material is examined. As these precautions would not eliminate fly infection by patients at large, food stuffs should be protected from flies who may already have ingested tuberculous material.

Many years ago Dr. S. Weir Mitchell first succeeded in impressing upon the mind of the medical profession the fact that errors in refraction and insufficiencies of the external ocular muscles were capable of producing disorder of nervous function in other portions of the body than the eye. Without doubt this clinical observation of Dr. Mitchell has proved itself to be an exceedingly valuable one, and has resulted in the recognition and relief of a large amount of suffering which drugs can only palliate, but which properly adjusted glasses can often relieve. Unfortunately, the truth which underlies this discovery has been magnified until certain per-

sons profess to believe that a host of pathological conditions may have their origin in eye-strain, and medical literature during the last fifteen years, and more particularly within the last two or three years, has fairly teemed with productions which, while they have been advantageous in the sense that they have drawn attention to the importance of this subject, have nevertheless been so excessive in their claims that experienced and conservative physicians and ophthalmic surgeons have been at once amused and annoyed by efforts devoted to making eye-strain an almost universal cause of disease.

We have read with much interest and amusement a paper presented to the New York Academy of Medicine by Dr. Dana, who first calls attention to the fact that the eye seems to be the only organ which is popularly associated with a strain, for, to use the words, "we do not hear of ear-strain nor tongue-strain, stomach-strain nor kidney-strain." Dr. Dana discusses the question as to whether cerebral strain resulting from abnormalities in the eye plays a part in the production of psychosis or morbid mental states. He asserts that alienists, without exception, do not recognize eye-strain, even as a contributing cause, so far as the major psychosis are concerned, and adds that after sixteen years of watching he has found hardly any cases in which eye-strain has been an important and direct factor in establishing even a minor psychosis. He concludes that perhaps, after all, the "most real psychosis connected with eye-strain is that shown by a group of enthusiastic oculists who have become possessed with the idea that eye-strain forms the background of most pathological conditions." At the same time the writer of this editorial and Dr. Dana are nevertheless in accord, for we both believe that eye-strain should be carefully looked after, but don't believe that our "mental balance and nervous well-being are entirely at the mercy of slight defects in the eye," to use Dr. Dana's words.

Thomas W. Dorsett, in the *Therapeutic Gazette*, makes a plea for the recognition of the presence of the intestinal parasite Uncinaria Americana, which he states is making frightful ravages among the so-called dirt eaters of Georgia, dwarfing both in body and mind great numbers, especially of the innocent barefooted boys and girls of the rural districts. The doctor thinks from clinical experience that the larvæ enter the body through the skin of exposed parts, notably the hands and feet, giving rise in those parts to the condition known as "ground itch." He has never seen a case of uncinariasis but that there had been a previous ground itch. Those who live in the southern parts of the United States should ever remember that in the vast majority of cases of anemia in those sections the hookworm and not the malarial parasite is the etiological factor. The diagnosis of the malady is exceedingly easy for one with a microscope, for the eggs are readily seen and recognized in the feces. Lacking a microscope, one is dependent upon the clinical manifestations: The patient at the opening of spring begins to feel badly, with a disinclination to work, and by summer may be in a very critical condition. During

the winter months he feels much better or quite well. The victim's growth is slow, he appearing as of but ten or twelve years when he has reached eighteen or twenty. The complexion is very sallow, the hair usually very light in color; the beard grows but little, and mental development is much retarded. In some cases there may be edema or even anasarca, and often there is slight elevation of temperature. The treatment is very simple and effective; thymol in 60-grain divided doses may be required. It is highly important that the patient take no alcohol in any form while taking the thymol, as it may dissolve the agent, allowing absorption and poisoning. The gastrointestinal tract must be thoroughly cleaned before administering the thymol. This is accomplished by calomel, ten grains, followed by the salts or oil. The thymol is given in the morning in three doses of twenty grains each hour for three hours. The patient is confined to his bed while the thymol is in the bowel, without breakfast or dinner. At 6 P. M. a large dose of salts or oil is administered to remove the worms. The patient is allowed no usual supper. If the gastrointestinal tract be not thoroughly emptied of fecal matter, and food prohibited for two meals preceding and two meals following the administration of the thymol, the worms will not all be expelled. The treatment should be repeated in a few days if the eggs are still found in the feces.

The secretary of war, in his annual report, recently submitted to congress, remarks that "it is evident that a staff department which has a personnel insufficient to perform the duties required of it in time of peace cannot be successfully expanded to meet the increased responsibilities of war. The commissioned personnel of the medical department is nearly two hundred short of the number required to perform its work at present, and the deficiency has to be made good by the employment of civilian physicians under contract. This is an expensive and unsatisfactory expedient in time of peace, while in time of war it heavily handicaps the efficiency of the department. A bill to increase the efficiency of the medical department was sent to congress at its last session with my approval, it having also received the favorable indorsement of my predecessor, Mr. Root. It provides for an increase in the medical department from 320 to 420, so as to do away with most of these contract surgeons. It also provides, approximately, the same proportion in each grade as is now given to the medical department of the navy, and which the medical department of the army enjoyed prior to the reorganization of February 2, 1901. While this bill will only slightly increase the cost of the medical department, it will very greatly increase its efficiency."

Colonel Nicholas Senn, I. N. G., will represent the Association of Military Surgeons of the United States at the Pan-American Medical Congress.

On the initiative, as would appear, of the French government, an international conference is to be held at The Hague, at an early date, to draw up regulations with regard to hospital

ships in naval warfare. The chief object will be to revise existing international rules, so as to leave no doubt with regard to the neutrality of hospital ships. The need of such ships in actual warfare is, of course, everywhere recognized. Japan has two hospital ships, and Russia has recently commissioned the Oriel. Hospital ships have been commissioned on several occasions in the British navy for the transport of sick and wounded of the army. At the present time the royal navy possesses only one hospital ship, the Maine, which, since its employment during the South African war, has been reconstructed, and is now attached to the Mediterranean squadron. It is, we believe, found extremely useful and convenient, especially in the case of the smaller ships, such as torpedo boats and destroyers, which have no sick bay. Patients are received on the Maine, and treated there, and the ship makes occasional trips to this country when a considerable number of invalids need to be brought home,

---

Broca observed this interesting case. The patient was a boy of four years. The first sight of trouble was toothache, of which the child complained on June 22d. A physician diagnosed a small dental abscess at the root of the first lower molar. But the occurrence was thought of little consequence, and was forgotten till the child's condition became serious. On July 1st, after a night of fever and delirium the patient was placed under a physician's care, twenty-four hours of valuable time being lost at this time, before the morning visit of the physician. On July 2d the patient was seen by the writer. In the right preauricular, parotid, and angulo-maxillary regions there was diffuse swelling, œdematous and non-phlegmonous. The skin was neither red nor puffy. There was a slight cloudy discharge from the ear. Nevertheless, the writer did not consider the trouble of auricular origin, for there was no appreciable modification in the retroauricular region, and it was not anywhere painful to pressure. There was no swelling over the tip of the mastoid. However, all of the swollen part over the ascending ramus and the body of the jaw was exquisitely painful to pressure. The writer considered the trouble to be without doubt an osteomyelitis of the maxilla. Pus was found around the carious inferior molar. This was the portal of entry of the infection, and the prognosis was very grave. As permission could not be gained at once for operation, it was deferred until the next morning. Incision was made along the border of the inferior maxilla. There was no pus, but two teaspoonfuls of a very fetid, brownish fluid flowed out. The effect of the operation was negative. The local swelling was diminished, but the general infection was not relieved. Death soon followed. The writer thinks that a correct diagnosis, with early operation, would have saved the child, and he urges the necessity of careful attention to a carious inferior molar in a child. Early extraction is indicated if the cavity cannot be perfectly filled.

James M. Beattie sums up his paper as follows: The present position is that an organism with distinctive characters from the ordinary bacteria

with which we are familiar has been isolated from typical cases of acute rheumatism and chorea (which is admittedly rheumatic in character) by different observers. This organism has been cultivated outside the body, by injection into rabbits has produced typical acute rheumatism and chorea and has been recovered from the infected animals. Streptococci, staphylococci, etc., do not produce these effects; and this organism, even when its virulence has been raised, does not, as Poynton and Paine have shown, produce the effects which are obtained by the injections of the ordinary pyogenic organisms. Therefore, the writer believes that he is justified in claiming that if not the only, at least it is one of the causal agents in acute rheumatism. This was the position taken up by Poynton and Paine in 1900. Their position has not been successfully assailed, but has been very much strengthened by further observations, and it seems extremely probable that we shall yet be able to give the micrococcus rhematicus the place in relation to rheumatic fever which the pneumococcus today holds in relation to pneumonia. The writer thinks it quite unnecessary to deal with a recent objection—that the organism is merely the cause of the terminal phenomena in cases of acute rheumatism.

Crime in lying-in homes is becoming more and more evident in the fact of the increase of the number of such institutions, in the brazen methods pursued in advertising them, and in the insinuated temptations and offers made in letters and circulars. The unblushing openness of the statements as to a "division of the spoils," or fees, shows that these fellows are really, though perhaps not legally, outside the pale of the profession, and that every physician should treat them as, they in fact are, abortionists and participating criminals. From a circular letter addressed to one of our subscribers by the proprietor of one of these institutions, we quote:

"For such cases as demand immediate interference in the early period of pregnancy, whenever in your own and my opinion such steps are indicated, the minimum fee of $35 does not apply to those who can well afford to pay a fee more in keeping with the requirements of the case. The physician sending such a patient must of necessity give up a considerable portion of his time to the interests of the case, and, in recognition of his services and assistance, I make it a rule to remit to him 20 per cent. of the gross fees received from the patient."

Blackmail and crime is seen in every hint and sentence of this nauseating literature, and the profession is naturally charged by the lay public with instigating or profiting by the breaking of the law. A few prosecutions carried out by the attorneys of medical societies would tend to abate this evil.

Referring to high-frequency applications as a remedy for x-ray burns, S. J. Stewart, of New Orleans, writes the New Orleans *Medical and Surgical Journal:*

"Readers of this *Journal* who are working with the x-rays may be interested in the following experience of my own:

"Some time ago while testing a lot

of tubes, my hands began to show the characteristic effect of prolonged exposure. The skin became red and inflamed, and in a condition resembling a severe sunburn. Out of a spirit of curiosity, I made an application of electricity obtained by passing the disruptive discharge from a static condenser through the primary of a Tesla coil; the secondary discharge from this coil was applied by means of a glass electrode directly to the back of hands and arms, with the immediate result of relieving the burning sensation and causing in a few days a disappearance of the redness. Since then I have several times exposed my hands to just as severe an ordeal, but take the precaution to make the high-frequency application afterward, and have not suffered the slightest inconvenience.

"Just here, as an electrician, I wish to emphasize the fact, that currents of high-frequency and high potential can only be obtained in this way, or by using a Oudin resonator as a step-up transformer. The method sometimes employed of grounding one pole of a static machine and connecting a vacuum electrode to the other and separating the discharge of an electro motive force no higher than the potential necessary to overcome the resistance of half an inch of air. This current can, in no sense, be termed a high-frequency current, and its potential cannot be considered as any higher than that of the machine generating it."

Certain officers of the Public Health and Marine Hospital Service have noticed for some time past, on everting the eyelids of some immigrants, that they presented a peculiar blanched appearance. At first it was thought that this was due to the treatment which they might have received prior to the embarkation. Recently, however, several hours after the first inspection was completed and all suspicious cases had been set aside, it was decided to make a re-examination of the entire number. While this work was going on a number of additional cases of trachoma were found. Upon following some immigrants behind a convenient inclosure, they were found to be busily engaged in instilling a substance into their eyes, which subsequent investigation showed to be adrenalin. Experiments with the drug proved that if instilled into the eyes of mild cases of trachoma, practically all evidence of the disease could be obliterated for about a half hour. To sum up, then, it seems that on arrival at port, and just before the medical inspection was made, they had been in the habit of instilling adrenalin into their eyes.

A new charter of the American National Red Cross has been passed by both houses of Congress. This charter, which puts the organization practically under the control of the government, was drawn by two former secretaries of state—Mr. Richard Olney and Mr. John W. Foster. Under it the governing body of the general society is to consist of a central committee of eighteen members. Six of these are to be chosen by the incorporators of the parent organization; when six or more state and territorial societies are formed, these will be entitled to elect six members, and the President of the United States

will also have the appointment of six central committeemen, one of whom he must designate as chairman. This central committee will select from among its members seven to constitute an executive committee. The accounts of the organization must be audited by the War Department.

"Poverty" is the title of a noteworty book by Robert Hunter, lately published by the Macmillan Company. By the term he means "the inability to obtain those necessaries which will permit them to maintain a state of physical efficiency"—a capital definition if the adjective is allowed. By several methods the number in this condition in the United States is estimated to be at least 10,000,000. In 1899 24 per cent. of the inhabitants of New York were compelled to apply for relief, not including those aided by such other means as unions, clubs, private alms, etc. In 1901 more than 2,000,000 male wage earners in the United States were without employment from four to six months. And this in a time and country where prosperity is much bragged about. The numbers of the poor who are so by their own fault and choice, such as the tramp class, are not to be estimated, but are perhaps not over 10 per cent. of the total. Mr. Hunter holds that child labor is in great part the price we pay for cheap goods. To reform, child labor must be stopped, factories and tenements made sanitary, dangerous trades supervised, some sort of insurance for old age, sickness, injury, etc., devised. The relation of sickness to poverty is admirably set forth. It is contended that at least a fourth of the distress which is manifested in the poor is due to sickness. In New York city it is estimated that 250,000 are constantly sick, two-thirds of whom are disabled. The higher the class of workmen the less sickness, while in the lowest classes sickness in some form is almost constantly present. The reduction of the death rate in New York in 1903 from 20 to 18.75 per thousand meant the saving of 4,500 lives and the prevention of 10,000 cases of severe illness. Preventive medicine is, therefore, the best means of preventing poverty.

A. P. Bedard's and E. I. Spriggs' paper in a British medical journal deals with some results obtained during the prolonged observation of a number of cases of severe diabetes upon various treatments. In these cases daily estimation of the nitrogen, ammonia, sugar, acidity and sodium oxybutyrate were made for periods varying up to three months. The results show that the bad effects, such as nausea, vomiting, weakness, and loss of weight, with the odor of acetone on the breath, which follow a too rapid withdrawal of carbohydrate from the food of a severe diabetic, are associated with precisely the same metabolic changes and symptoms of acid poisoning as in coma itself, to which they are known to sometimes lead. The most prominent result in the urine is a rapid rise in ammonia. The percentage of nitrogen excreted in this form rose in one case in ten days from 7 per cent. to 29 per cent. The alkalinity of the blood falls, and the amount of carbon dioxid in it is diminished. The spontanous recovery which usually occurs

is accompanied by diuresis, but not by a fall in the proportion of ammonia. The administration of alkali produces the opposite effects to a diabetic diet, as regards the ammonia, and causes a general improvement in the condition of the patient and a disappearance in the odor of the acetone. Although an increase in the quantity of urine follows, there is no marked rise in the excretion of sugar after the first day or two. The alkali was given in considerable doses up to 75 gr. of sodium bicarbonate per day, in milk, in four equal portions. It would seem advisable to use this drug when a patient is being transferred from an ordinary diet to one which is poor in carbohydrate, and especially to a rigid diabetic diet, if such should be desired. The administration of alkali must be watched, as disturbunces of digestion, diarrhœa and edema may be produced. The object of the alkali is attained when the urine becomes neutral. This occurs in a few days in some cases, but in some not for weeks. Opium caused in the cases observed a general diminution in the amount of urine and of its constituents, but none in the proportion of ammonia. Codein was not found to produce any effect on the metabolism. The ferric chlorid reaction was most marked on a diabetic diet, and on an alkali it became less when coma was actually imminent. The odor of acetone is greatest on a diabetic diet, and is diminished by alkali. This sign and the weight of the patient were found better guides to the condition of severe cases than was the amount of sugar in the urine.

COUNTY SOCIETY NOTES.

ST. LOUIS MEDICAL SOCIETY.

Report of the Committee on Public Health and Legislation, St. Louis, Dec. 17, 1904.

St. Louis, Dec. 17, 1904.

To the St. Louis Medical Society:

Mr. President—Your Committee on Public Health and Legislation have the honor hereby to submit their annual report for 1904—the present year being the first one in the history of the society to witness a standing committee of this name and character.

Early in the year a more explicit definition of the powers and duties of the committee under article XVIII. of the by-laws was requested by us, and this was granted in the form of an ordinance by the society. Acting thereunder a number of subjects of local, state and national concern were brought to the notice of the society as worthy of attention, and some of these were carefully considered last winter and spring.

The local matters thus presented were the public milk supply, garbage collection and removal, enforcement of the law against deposit of sputum in public places, and the medical inspection of public school children; and on these several topics your committee would report as follows:

Public Milk Supply.—As a result of careful inquiry it appears that St. Louis possesses a law covering this

subject that is workable and is applied for the protection of the consumer, the penalties provided for adulteration or other fraudulent practice by dairymen and milk dealers being generally enforced by the courts.

An attempt made in the early part of the year by this class to repeal this law and substitute therefor a measure in their own interest failed, and so far as known, no hostile legislation in this respect is now pending or intended. However, the working efficiency of the city chemist's office for several months past has been seriously embarrassed by the failure of one branch of the Municipal Assembly to authorize the employment of indispensable office help; and at this time no relief appears in sight.

Garbage Collection and Removal.— As will be remembered, litigation in a case appealed to the state supreme court, resulted last year in a decision by that court to the effect that the then existing contract let by the city board of health to a private contractor was void, which necessitated legislation by the municipal assembly to meet the emergency, the outcome of which was the assumption by the city of this work April 1 last, the service being placed in charge of the street department.

It is but fair to remember in this connection that such work, entirely novel here as a municipal undertaking, was almost precipitated on the city and under extraordinary circumstances, the opening date of the Louisiana Purchase Exposition being but one month distant, and in attempting to rightly estimate the value to the public of the city's work in this respect these changed conditions must be kept in mind, as it is probable that the gross volume of garbage to be removed was increased not less than 20 per cent. over the highest figure of any former year by the throngs of visitors to the Fair, the transient daily population being very likely near 100,000.

Being duly authorized, your committee last month sent postal card inquiries to every member of the society requesting an expression of opinion as to the "value to the public of the present municipal service . . . as compared with the work done prior thereto under private contract," it being considered that no other equal number of persons could speak so intelligently on the subject by reason of the fact that a large proportion of the members are constantly passing in all directions through the city, and further because of their opportunities for close knowledge of all transpiring within the households visited that concerns the family health and comfort.

Of the total responses received about 67 per cent. report the present service an improvement over the former arrangement, the commendation often being unqualified and emphatic, but in some instances coupled with suggestions as to further betterment. About 18 per cent. report no improvement over past conditions, while about 15 per cent. express no opinion on the question submitted, either through having no garbage to dispose of, or having methods of domestic disposal, or for other reasons.

Complaint is made of the miscellaneous character of garbage con-

tainers used, of their rough usage by drivers, and of the insolence of the latter; of leaking, over-filled and foul-smelling wagons, and of the streets used by them as main routes for delivery of the loads.

The expression in favor of municipal service as against the former plan is almost unanimous, this opinion being based either on principle or observed practice, although a few maintain that domestic destruction of garbage is the only true course.

The Deposit of Sputum in Public Places.—The law forbidding this practice has undoubtedly worked a very considerable change for the better so far as expectoration on sidewalks, in street cars, etc., is concerned, but the enforcement of this ordinance by the police appears to be inefficient and perfunctory to a degree. Much of the offense arising from this source throughout the year was due to visitors here not informed as to the law. Altogether the effect of this measure on the habits of the home population has been educational and salutary.

Medical Inspection of Public School Children.—No progress has been made towards bringing about this important sanitary innovation, the hearing granted to this committee last spring by the committee on instruction of the board of public schools being void of fruitful results. It seems clear that history must repeat itself and that here, as elsewhere, numerous children must die of infectious diseases communicated during school hours before this reform can be accomplished.

In state affairs the principal concern that has engaged the attention of the committee is the forwarding of of the project for a state sanatorium for persons in the earlier stages of consumption, this work being a direct inheritance from a special committee formed in 1902, which was authorized to press the subject upon the attention of state officials and the general assembly in every proper manner. This was done, but unsuccessfully, as the event proved.

Under authority of the resolutions passed by the society on the 5th ult., the committee has mailed copies of said resolutions to every medical society in the state whose address could be found, to the councillors of the Missouri State Medical Association, to the members of the state board of health and every health officer in Missouri, and to the home address of every member of the senate and house of the forty-third general assembly in anticipation of the meeting of that body next month. In addition, special letters were sent to the governor and governor-elect, inviting their attention to the matter; and further personal letters were sent to all the medical members in both houses asking their special consideration of the promised bill, so that the ground has been pretty well prepared in a preliminary sense for our successors in this work. So far as ascertained, the sentiment of the medical profession in all parts of the state is as a unit in favor of the action recommended.

It is the belief of this committee that this movement would command a wider general support if the proposed institution were advocated as constituting in fact an important addition to the educational resources and teaching equipment of the state,

rather than presented in the guise of a hospital, or as being in any sense of a strictly medical character.

A bill is now before congress for "preventing the adulteration or misbranding of foods and drugs, and for regulating traffic therein, and for other purposes," which passed the house last session (where it was known as the Hepburn bill) and is at this time pending in the senate (where it is known as the Hepburn bill).

It has been materially amended since it passed the house and has been under discussion within the last ten days, but some opposition appears to have been developed, and the outcome is uncertain.

It seems to be a measure framed in the public interest, and no reason is evident why this society should not urge the Missouri senators to give it their support, and the committee would so recommend as this matter was referred to them for investigation and report.

All of which is respectfully submitted.

GEORGE HOMAN, M. D.,
R. M. FUNKHOUSER, M. D.,
F. L. HENDERSON, M. D.

ANNUAL REPORT OF THE RECORDING SECRETARY OF THE ST. LOUIS MEDICAL SOCIETY OF MISSOURI FOR THE YEAR 1904.

To the Members of the St. Louis Medical Society:

The distractions and privileges of a World's Fair year are quite as evident in the work of our society as in any other phase of St. Louis life. The society held fewer meetings than in 1903, having held thirty-five regular meetings and one special meeting. The attendance suffered because of the numerous and various outside interests of the year; the total attendance at all meetings was 1,456, giving an average attendance, since my last report, of a slight fraction under forty. This is somewhat less than in 1903, but above the average for recent years.

At the meetings forty-three papers and addresses have been presented, and pathologic specimens and patients have been presented at eighteen meetings. One hundred and thirty-six discussions of papers, cases and specimens are recorded. The scientific programs have been of exceptional excellence throughout the year, but it has been ours to be especially privileged in having with us numerous American and foreign medical authorities, who were brought to our city by the Fair, and the various association meetings held here during the year. Among those who have addressed the society on the regular program were Prof. K. Mitsakuri, of the Imperial University of Japan; Prof. Dr. W. P. Dunbar, of Hamburg; Prof. Dr. A. Wasserman, of Berlin; Mr. J. R. Taylor, Chief of Laboratory of Los Animas Hospital, Havana, Cuba; Drs. W. W. Keen and Chas. K. Mills, of Philadelphia; Drs. Chas. L. Dana and Robt. Abbe, of New York City; Dr. Maurice Richardson, of Boston, and Drs. H. N. Moyer, W. T. Eckley, A. P. Matthews, A. J. Ochsner, of Chicago, and Dr. McMurtry, of Louisville.

A considerable number of the local profession, who are not members of our society, have participated in our progress, and it occurs to your secre-

tary that an active campaign should be inaugurated to bring them into the fold.

The growth of the society during the year has been normal, though not so decided as had been hoped. There have been eighty-four nominations for membership. Of this number, fifty-nine have become members; one was rejected by the elections committee, and one by vote of the society. Of the twenty-three not accounted for, a few will be balloted on at our next meeting, but a majority have failed, in spite of repeated notices, to appear before the elections committee.

The society has lost four members by withdrawal during the year and three by death, the latter Drs. John Gilwee, T. F. Prewitt and E. E. Webster.

The roster of the society shows that we now have 427 associate members, of whom fifteen are on the delinquent list. The smallness of our delinquent list should be a matter of great satisfaction to the society. There are eight honor members.

In the early part of the year the society revised its constitution and by-laws to bring the same in conformity with the laws of the state association. The revision committee and the recording secretary spent considerable time over the matter of revision, and, while there are still some points which may at a future day be slightly changed, the laws, as they now stand, are much nearer perfect than any we have had in some years.

I have discovered that several members have removed from the city without notifying the society or applying for withdrawal cards, leaving us to carry them until we find it convenient to suspend them. At the same time it develops that they are received into the county societies where they locate. It would seem that all county societies should reqnire at least a clearance card from a former location before they accept members coming to them. At the present time there are members on our delinquent list who are in good standing with a county society and with the state and national associations. This should be impossible.

The revised by-laws have so materially increased the duties of the recording secretary that the position has ceased to be one which can be considered desirable as an honorarium. It has been impossible for me to make time to do all the work required by our laws, and when this developed, I presented the matter to the society and was excused from a part of the duties. I, myself, believe that this is a bad precedent and should not be allowed in the future.

The society has also voted to the recording secretary the duty of reporting the meetings in the *State Society Medical Journal*. This work I have not done as it should have been done, largely because so many other duties interfered. In behalf of my successor I would suggest that this duty be placed in other hands.

In closing the year, your recording secretary wishes to express his appreciation to the members of the society and to all those who have helped to make his work, which is somewhat arduous at best, very much a pleasure.

Respectfully submitted,

T. A. Hopkins, Secretary.

December 17, 1904.

RANDOLPH COUNTY MEDICAL SOCIETY.

Dr. D. A. Barnhart, President.
Dr. G. W. Nichols, Vice-President.
Dr. S. C. Adams, Secretary.
Dr. O. O. Ash, Delegate.

The Randolph County Medical Society met in regular session December 13th at Higbee, Missouri, Dr. D. A. Barnhart in the chair. The minutes of the last meeting were read and approved. Dr. Johnson read a paper on "Pneumonia." Enthusiastic discussion followed. Dr. Johnson was elected a member of the society. There being no further business, the society adjourned to meet in Moberly, Missouri, on January 9, 1905.

JASPER COUNTY MEDICAL SOCIETY.

Dr. R. L. Neff, President.
Dr. J. D. Pifer, Secretary.
Dr. C. W. Miller, Treasurer.

The Jasper County Medical Society met in regular session at the Y. M. C. A. building, with Dr. Neff in the chair. Dr. Shelton read a paper on "Syphilis of the Nose," giving a description of the different manifestations of this disease in the nasal passages. His paper was fully discussed by all members present. Dr. Stamey then read a paper on the "Administration of Potassium Iodide," which was also discussed.

The secretary then read resolutions and a letter from the St. Louis Medical Society asking our co-operation in an effort to secure legislation in the form of an appropriation for the erection of a state sanitarium for the care of tubercular cases. Dr. Grantham moved that we endorse the enterprise and advise the secretary of the St. Louis Medical Society of our co-operation; and also that we draft resolutions petitioning our members of the state legislature to assist in the passage of the bill. Motion carried.

Dr. Freeman requested all doctors to report cases where persons were known to be practicing medicine illegally, that he might turn the names over to the prosecuting attorney. Dr. Freeman introduced the following resolution:

"*Resolved*, That we, as members of the Jasper Medical Society, recommend Dr. P. L. Freeland, late of Joplin, Missouri, now of Baxter Springs, Kansas, to the physicians of Kansas as an ethical, competent physician, and in every way a gentleman, and that the secretary of this society is hereby instructed to mail to Dr. Freeland a copy of this resolution."

The resolution was adopted by the society.

Dr. R. M. James, of Joplin, Missouri, applied for membership, and his application was referred to the board of censors.

The president appointed the following gentlemen to arrange for the annual banquet in February: Drs. Matthews, Grantham and Freeman.

C. C. CUMMINGS, Reporter.

AUDRAIN COUNTY MEDICAL SOCIETY.

Dr. C. A. Rothwell, President
Dr. E. S. Cave, Secretary-Treasurer.

The Audrain County Medical Society met in regular session Monday evening, January 9th, at the office of Dr. Cave, Mexico, Dr. Robert W. Berry presiding. The minutes of the previous meeting were read and approved. Dr. Paul E. Coil read a very

entertaining paper on "Croupous Pneumonia." Discussion of the paper was general. This being the annual meeting, election of officers was next in order. The successful candidates were as follows: President, Charles A. Rothwell, Mexico; vice-president, R. L. Alford, Vandalia; secretary-treasurer, E. S. Cave, Mexico; member of board of censors, to serve three years, Paul E. Coil. The next meeting of the society will be held Monday evening, February 6th, when Dr. E. S. Cave is to read a paper.

C. A. ROTHWELL, Reporter.

CURRENT RIVER MEDICAL SOCIETY.

Dr. Frank Hyde, President.
Dr. J. A. Chilton, Secretary-Treas.

The November meeting of the Current River Medical Society was postponed to December 21st, when a short and interesting program was rendered, followed by the annual election of officers, which resulted as follows: President, Frank Hyde, Eminence; vice-president, T. B. Younger, Birchtree; secretary-treasurer, J. A. Chilton, Van Buren; reporter, J. A. Chilton, Van Buren. The society adjourned to meet at Birchtree, February 7th. FRANK HYDE, Reporter.

RALLS COUNTY MEDICAL SOCIETY.

Dr. O. B. Hicklin, President.
Dr. T. J. Downing, Secretary-Treasurer.

The Ralls County Medical Society met in regular session at Perry Thursday evening, January 12th, Dr. Robert E. Suter in the chair. The minutes of the previous meeting were read, approved and ordered made a part of the society records. New members were elected in due form as follows: Drs. F. M. Moore, A. M. Miles and Samuel W. Downing, of Perry, and Dr. W. F. Waters, of New London. Dr. C. H. Groves, of Center was elected reporter, and Dr. T. J. Downing, of New London, delegate. The rest of the evening was given up to a general discussion of "Pneumonia and Its Treatment." The subject proved a most interesting one, and every member present felt that he had profited greatly through the discussion. Many interesting papers are promised for the April meeting. There are now in Ralls county only three practitioners who are not members of the society, and we feel that by April first there will be at least one county in the state solidly organized, that in Ralls county every legitimate practitioner will be a member of our county society.

T. J. DOWNING, Reporter.

HOLT COUNTY MEDICAL SOCIETY.

Dr. B. T. Inigley, President.
Dr. J. F. Chandler, Secretary.
Dr. S. W. Aiken, Treasurer.

The first quarterly meeting of the Holt County Medical Society was held at Maitland on the 3d inst. Dr. Kaltenbach presented a paper on "Observations on Mastication." To exemplify some salient features of the development of the maxillary bones of primitive man Dr. Kaltenbach exhibited bones (taken from the burial grounds in New Mexico), presumably Aztecs, and doubtless 2,000 years' history connected thereunto. Dr. Bullock read a paper on "Dermoid Tumors; Report of a Case," and exhibited a fine specimen removed by him. Both papers were highly appreciated

by the members present, the authors having shown great care in the preparation of the same. The next regular meeting will be held at Mound City, first Tuesday in April.

J. F. CHANDLER, Reporter.

SHELBY COUNTY MEDICAL SOCIETY.

Dr. H. C. Vaughn, President.
Dr. A. M. Wood, Secretary.

The Shelby County Medical Society met in regular session December 22, 1904, in the office of Dr. H. C. Vaughn, at Shelbina. As "something better" had been promised, other business was dispensed with except the election of officers for the ensuing year, which resulted as follows: President, H. C. Vaughn; vice-president, William Carson; secretary-treasurer, A. M. Wood; delegate, William Carson; censors, W. W. Owen, F. K. Roy, Alex. White. The society then repaired to the banquet hall, where a sumptuous feast was spread, with Dr. J. D. Smith as "toastmaster." Each one present responded. "The Missouri Doctor," by Dr. Dallas, and "Memories of Some Old Friends," by Dr. Vaughn, were especially enjoyed. The presence of and talks by the visiting physicians, Drs. Brown and McNutt, of Monroe, were appreciated and enjoyed by the society. "Many good cigars were smoked and many experiences and stories told, that made each one proud and happy that he was in the fold." The society then adjourned to meet in March, when several papers have been promised to be read.

A. M. WOOD, Reporter.

MARION COUNTY MEDICAL SOCIETY.

Dr. R. H. Goodier, President.
Dr. Janet Reid, Secretary-Treasurer.

The Marion County Medical Society met in regular session, President R. H. Goodier in the chair. Dr. Janet Reid presented a patient to the society, a woman who six months ago had a slight injury to the back of the head. Shortly afterwards there developed a swelling at the point of injury, which has persisted with variations up to the present. It is more painful to the touch, and causes more or less suffering. Most members thought it connected with the pericranium. Dr. C. T. Hornback read a paper on "The Pupil," which was enjoyed by all present. While it dealt with a special subject, it was still of interest to the general practitioner. H. L. BANKS, Reporter.

CHARITON COUNTY MEDICAL SOCIETY.

Dr. H. E. Tatum, President.
Dr. C. A. Jennings, Secretary-Treasurer.

The Chariton County Medical Society convened at the residence of Dr. I. H. Baker, Salisbury, on December 29th. Among the visiting physicians present were Drs. L. A. Bazan and Bradley Anderson. After reading the minutes of the preceding meeting, which were approved, the society proceeded to the election of officers. The result was as follows: Harry E. Tatum, president; Wilford L. Baker, first vice-president; C. H. Temple, second vice-president; C. A. Jennings, secretary-treasurer; W. L. Baker, reporter. The board of cen-

sors as now constituted consists of Drs. J. F. Welch, W. L. Baker and Isaiah Knott. Resolutions relative to the appointment of a board of health by the county court were reported by Dr. J. D. Brummall and unanimously adopted.

Dr. J. F. Welch read an interesting, instructive paper on "Infantile Inanition Fever." Enthusiastic discussion followed; the doctor's treatment was generally commended and the hope was expressed that the paper might lead to closer investigation of this common condition. Dr. Brummall reported a clinical case which proved very interesting.

The society adjourned to enjoy the hospitality of the physicians of Salisbury, Dr. and Mrs. Baker acting as host and hostess. At the next regular meeting, to be held in Salisbury, Thursday, January, 26th, papers will be read by Dr. Austin on "Scabies," and by Dr. Knott (subject not announced).

C. A. Jennings, Reporter.

MISSISSIPPI COUNTY MEDICAL SOCIETY.

Dr. P. P. Boggan, President.
Dr. W. P. Howle, Secretary.
Dr. A. W. Chapman, Treasurer.

The Mississippi County Medical Society met in Charleston, Missouri, January 2, 1905, and elected officers as follows: President, P. P. Boggan; vice-president, John E. Rowe; secretary, W. P. Howle; treasurer, A. W. Chapman. The president and secretary were authorized to sign the petition for the incorporation of the American Medical Association. The following changes were made in our by-laws: First, we elect officers now once instead of twice a year; second, we meet now only in Charleston instead of "most any old place." We meet only quarterly instead of monthly; third, our regular meetings are to be held the first Monday nights in March, June, September and December; fourth, four members now constitute a quorum instead of five; fifth, a motion to adopt the constitution and by-laws as recommended by the state and national societies was lost.

W. P. Howle, Reporter.

CALDWELL COUNTY MEDICAL SOCIETY.

Dr. C. C. Leeper, President.
Dr. Tinsley Brown, Secretary-Treasurer.

The Caldwell County Medical Society convened in Masonic Hall, Braymer, January 4th, Dr. C. C. Leeper in the chair. After the invocation by Rev. Knight the following papers were read, each being liberally and enthusiastically discussed; "Pelvic Abscess Complicating Pregancy," by Dr. Tinsley Brown; "Follicular Tonsillitis," by Dr. G. S. Dowell; "A Case of Lung Trouble Complicated with Phlegmon of Both Legs," by Dr. B. F. Carr. Dr. G. W. Grove, of Kansas City, gave a fascinatingly interesting and instructive talk on diseases of the ear. The attendance, considering the inclement weather, was very good. The next meeting will be held at Breckinridge, April 5th.

Tinsley Brown, Acting Reporter

JACKSON COUNTY MEDICAL SOCIETY.

Dr. R. T. Sloan, President.
Dr. M. Goldman, Secretary.
Dr. L. W. Luscher, Treasurer.

The annual meeting of the Jackson County Medical Society was held on December 8, 1904, Dr. J. W. Kyger in the chair. The greater part of the time was taken up by the reports of the various committees, the annual address by the retiring president and the election of officers for the year 1905. The report of the secretary, Dr. E. L. Chambliss, showed in a very gratifying manner the growth and progress of our county society in the past year. The election of officers resulted as follows: President, Dr. Robert T. Sloan; vice-president, Dr. Edward H. Thrailkill; secretary, Dr. Max Goldman; treasurer, Dr. Louis W. Luscher. Delegates to the state association: Dr. E. H. Thrailkill, Dr. E. L. Chambliss, Dr. F. L. Cook of Blue Springs; Dr. H. E. Pearse.

The Jackson County Medical Society held its regular meeting on Thursday, December 22, 1904, Dr. R. T. Sloan in the chair. The scientific program consisted of the presentation of clinical cases, and several reports of cases. A number of applications for membership were received. The case presented by Dr. J. Block, one of aortic aneurism, proved to be of unusual interest, both in its history and in the signs and symptoms present; it was of special value from the standpoint of diagnosis. Dr. William Frick presented a case of recurrent onychia, involving all the nails of both hands and the nails of the big toes of both feet. The discussion following the report of this case brought up, especially the question of etiology. Dr. C. Lester Hall reported two cases of ovarian cyst, one simple and benign, the other malignant. Four cases of acute colitis, due to colon bacillus infection, were reported by Dr. E. R. Curry; all the cases occurred in one family; three proved fatal and one recovered. In the discussion which followed great emphasis was placed on the importance of early discovering the source of infection.

At a regular meeting of the Jackson County Medical Society, January 12, 1905. Dr. E. von Quast read a paper entitled "Goitre, Its Surgical Treatment," in which were considered, among other things, a number of the various surgical interferences, and a summary of the operations described and recommended by the essayist. Dr. F. W. Rathbone read a paper entitled "The Use of Medicine in the Treatment of Goitre," very thoroughly covering the therapeutics of the disease; he spoke not only of the drugs formerly used, but also considered the newer agents employed in the treatment of this disease. The discussion of these papers was opened by Dr. Robert M. Schauffler, a large number of the members present also taking part. At this meeting the society heartily indorsed the resolutions of the St. Louis Medical Society, favoring the establishment of a state sanatorium for the care of cases of incipient tuberculosis, and adopted means to co-operate with that society in their efforts along this line.

MAX GOLDMAN, Reporter.

HOWARD COUNTY MEDICAL SOCIETY.

Dr. A. W. Moore, President.
Dr. C. W. Watts, Secretary-Treasurer.

The Howard County Medical Society met in Fayette, January 17th, Dr. A. W. Moore presiding. The minutes of the November meeting were read and approved. Resolutions regarding the building of an institution for the care and treatment of cases of incipient tuberculosis were presented through Dr. Geo. Homan of the St. Louis Medical Society. They were generally discussed and then endorsed by the society. The opinion was very freely expressed that nowhere in the state can there be found so nearly an ideal situation for this institution as down here in Southwest Missouri where we have such glorious pure fresh air and where nature has done so much to delight everyone with her deep blue skies and her ever-varying and charming scenery; where it is always a pleasure to be out in the open air and life-giving sunshine. Drs. U. S. Wright, C. H. Lee and C. P. Magee were appointed a committee to act for the society in all matters pertaining to our interests in this proposed institution. Dr. Ward presented a paper on "La Grippe and Its Complications." This paper was especially enjoyed for its historical features. Drs. U. S. Wright and C. W. Watts presented a most interesting clinic, including cases of pneumonia, la grippe, catarrhal fever and pericarditis. The society changed its constitution and by-laws to make them conform with those of the Missouri State Medical Association as regards the beginning and ending of the fiscal year. The committee on program and scientific work were requested to furnish papers for the February meeting. The society adjourned to meet on the 21st of February.

C. W. Watts, Reporter.

DAVIESS COUNTY MEDICAL SOCIETY.

Dr. J. D. Dunham, President.
Dr. M. A. Smith, Secretary-Treasurer.

The Daviess County Medical Society held its regular quarterly meeting in Gallatin, January 17th, Dr. Dunham presiding. The attendance was unusually large and although there were no papers read, the discussion on "Injuries to the Brain" was general and enthusiastic. Two new members were enrolled and officers for the ensuing year were elected. The delegate will be appointed at the next regular meeting, to be held on the 11th of April.

H. A. Smith, Reporter.

ABSTRACTS.

Notes from the Philippines.—At the November meeting of the Manila Medical Society a case of amoebic cystitis was reported by Dr. J. R. McDill. If the cases of amoebic cystitis due to rectovesical fistula are excluded, a perusal of the literature on this subject shows that this is a very rare condition and that few cases have been made a matter of record.

The case in question came under observation on account of some abdominal symptoms which were afterwards attributed to floating kidney. The infection is supposed to have been contracted from an unclean catheter which was used on the patient by a careless attendant. The treatment consisted of bladder irrigatons of a 1-1000 quinine solution, soon after which all traces of amoebæ in the urine disappeared. At the same meeting a paper was read by Dr. R. P. Strong, director of the government biological laboratory, entitled "Some Questions Relating to the Virulence of Microorganisms, with Particular Reference to Their Immunizing Powers." The conclusion reached was that the virulence, as shown by experiments on animals, was not in direct proportion to the dose injected.

The experiments were all made with the cholera organism, and the writer expressed the hope that others would take up this work with other bacteria with the view of ascertaining whether the same results would be reached. Another paper was read by Dr. Paul G. Woolley, entitled "A Case of Sarcoma of the Eye Involving Chiefly the Ciliary Body." This was a primary sarcoma of the eye due to an injury. The condition is rather rare, according to the author of the paper. A number of excellent photomicrographs were exhibited to illustrate the case.

The construction of the new government laboratory building, of which mention has been made in these columns from time to time, has advanced sufficiently far to permit of its being occupied by a number of branches of the bureau of government laboratories. The lighting and power plant has not yet been installed and the numerous carpenters and other workmen who are engaged around the building make its inspection rather unsatisfactoy at present. There is little doubt, however, that when completed this will be one of the foremost institutions of its kind in the world. It will offer opportunities for research work which can scarcely be equalled by any American institution, and when the opportunities for obtaining virgin material are added to this it will be seen what a splendid promise the future holds forth. The bureau is composed at present of the following divisions: (1) A serum laboratory at which are manufactured vaccine virus, rinderpest serum, etc. (2) A library in which are to be stored and catalogued all the scientific books in possession of the government. (3) A well-appointed chemical laboratory. (4) An entomological division, which has already done good work in the study of the insects which were destroying the cacao plants of the islands. (5) A biological laboratory, which gives much promise for the future. (6) A botanical division. The large number of plants which remain unidentified gives this division a large field in which to work. There are a number of other branches of the bureau, but they can scarcely be dignified by the name of division, as for instance the branch which takes the photographs for all departments of the government. It has also been proposed to incorporate a division of weights and measures, the necessity for which has already been felt. The superintendent of government laboratories, Paul C.

Freer, formerly professor of chemistry at the University of Michigan, is at present in the United States on a leave of absence. Dr. R. P. Strong, the director of the biological laboratory, is acting in his place.

The outbreak of smallpox at various points of the islands still continues. The situation, as nearly as can be ascertained, remains about stationary. No other quarantinable diseases are reported in the islands at the present time. A particularly discouraging factor with which the board of health has to deal is the continued high death rate in Manila. The last report issued shows this to be 55.28 per 1,000. It was confidently expected that, when the large number of deaths due to cholera could be eliminated, the mortality would show a decided improvement, but that such was not the case is shown by the fact that there has been no cholera reported in the city of Manila for more than six months, and yet the percentage of deaths is as high, and some months even higher, than during the cholera epidemic. It was also thought that the population as given by the official census of 1903 (219,941) was entirely too low, and therefore the death rate calculation as rendered was erroneous, but a police census which was recently completed shows that the present population does not exceed the figures given by the official census. Smallpox was another disease the deaths from which cause mortality statistics to remain high, but no deaths from this disease have been reported for a number of weeks and still the percentage refuses to drop. The greatest number of deaths is, of course, among infants under one year of age. When the utter lack of knowledge of how to take care of children, and the poor physiques of the Filipinos as a class are considered, it is difficult to see how any great improvement is to be expected in the near future.—*Medical Record.*

Lines of Advancement in the Treatment of Malignant Disease.—Robert Abbe, in the *Medical Record*, points out the lines of advancement in the treatment of malignant disease. Undoubtedly, he says, gain has been made in three notable directions, viz., (1) In the recognition of the principle that carcinoma and sarcoma are primarily of local origin. This makes the cure almost certain when very early operation is done. (2) In recognizing the enormous value of increasingly extensive operation in advanced cases, widening the field of skin removal and lymphatic dissection. (3) In establishing the value of radio-therapy. Apart from these we have to record attempts to utilize serum therapy-antitoxin and tissue metabolism by oophorectomy (Beaton's method) and thyroid extract adminstration. Too much stress cannot be laid upon the importance of the sarcoma, the value of which has been so often emphasized by every writer. The fact, however, is to be deprecated that there are still constantly presented to the surgeon today many cases operated upon by men who do but little surgery, and allow themselves to remove small mammary tumors without taking away the breast, or to amputate the breast without excising the lymphatics of the axilla, or pectoral muscles, or if these are done with a show of

thoroughness, then to incise the skin near the tumor within the margin of safety, so as to make easy suture of the skin possible, paying more attention to the cosmetic effect than justified. It is in these cases which constitute such a vast majority of recurrences that the margins of the scars are the first and often the only site of return of disease. This puts emphasis on the value of wide removal of skin and extensive skin grafting at the primary operation, and it is this the author believes that has made the great advance in mammary operations. In cancer of the stomach, however, it is not clear that it is wise to tax the resources of surgery to do those elaborated operations which are possible, but so often fatal, and so fruitless of permanent benefit — a triumph of surgical art which is not a triumph over disease is not one to boast of—and this sentiment so far prevails that most operators are content with the simple, safe and admirable posterior gastroenterostomy in restoring digestive functions as far as the diseased condition ever will permit.

Advanced cancer of the tongue early recurs, and this, together with the deplorable condition of the mouth after removal, leads us to look for help to radiotherapy.

Three methods of treating malignant diseases through systemic and what might be called alterative measures have commanded much public attention. They are serum-therapy, antitoxin treatment and oophorectomy. The use of serum awaits the report of the French surgical commission to establish claim to consideration of the more conspicuous use of the principles of bacteriotherapy with the toxins of the erysipelas coccus, both with and without the bacillus prodigiosus, to defeat the growth of malignant tumors. There have been enough well-recorded cases to establish the fact that a very small proportion, and these of unusual types of sarcoma, retrograde or disappear. Extraordinary changes are seen to result from removal of the ovaries in cases of mammary cancer. The tumor, having been demonstrated to be malignant, will often retrograde and sometimes disappear, though not usually permanently. In eight cases afflicted by hopeless mammary cancer, in which the author removed the ovaries, all but one showed distinct retrograde changes, with prolongation of life; but death occurred ultimately from the disease in all but one case. In the most remarkable of these cases one tumor the size of a hen's egg and eight small cutaneous nodules disappeared entirely within eight weeks of the oophorectomy. In radiotherapy is furnished an external stimulus, which adds a measure of strength and control to the vital spark left in the decadent cells of the morbid growths. The outcome of the application of radiant energy has been many tumors dissipated, some unaffected, occasional recurrences and a few cures. The Roentgen ray, radium and Piffard lamp emit somewhat the same influence and excite a grade of local irritation not at all like inflammation of usual type. Radium, notably, sets up a brawny change when displaying its severest energy, resembling urticarial wheals, which is supplanted by a curative action. It alone can be used in deep structural disease, bone and

other tumors, where it may be buried for hours or days, according to its strength. From radium, therefore, we may expect the greatest future results. As yet few applications in deep growths have been made, owing somewhat to the reluctance of those who possess strong specimens, of which there are but few, to experiment on patients whose only hope has seemed heretofore to be in an operation. There is promise of a large production of strong radium in Austria, and the next year will reveal further fruits of research and treatment.

Pruritus Ani, Treatment of. — The writer limits the term pruritis ani to a condition characterized by intense itching about the lower orifice of the bowel. Pruritus is often a symptom, sometimes an essential disease. The possible etiological factors of this affection are numerous. It is often found in the gouty and in those who suffer from disorders of the digestive and chylopoietic apparatus. Shellfish and strawberries sometimes give rise to it, also tobacco. Piles, constipation, fissure, ulceration, foreign bodies and irritating discharges from the bowel or neighboring parts sometimes give rise to it. Cutaneous diseases, such as eczema, may produce the symptom. It is said that the most important predisposing cause is hyperæsthesia. General diseases producing it may be idiopathic neuroses, such as hysteria or hypochondriasis or other affections of the nervous centers. Although pruritus ani may occur at any age, there is a certain relation of particular causes to particular ages. Thus, in children the itching is likely to be due to worms. The patient generally seeks relief in violent scratching, and thus secondary lesions develop.

Pruritus ani is often very refractory to treatment. The first thing to do is to seek for the cause and remove it or neutralize its action. The treatment must be appropriate to the cause. In all cases it is well to regulate the bowels and recommend a bland but nutritious diet. Rich foods and alcohol should be forbidden. Short courses of calomel in small doses are useful. Tonics are indicated if the patient is depressed, with a poor appetite and failing nutrition. Thorough flushing of the system with large quantities of weak alkaline waters is often a powerful aid to local treatment. The most scrupulous cleanliness must be enjoined. The application of hot water, as hot as can be borne, is a very efficacious method. Some patients prefer very cold water. After bathing, a soothing or cooling remedy should be applied.

Local remedies may be classified as anodyne, antiseptic and caustic. Cocaine may be used in the form of a suppository, but care should be taken that the patient is not allowed to use this remedy too freely. Menthol is cooling. A strong solution of bicarbonate or bisulphate of soda applied in a poultice is an excellent sedative. Carbolic acid often acts like a charm. Oil of cade is useful. The local application of calomel is highly praised. The calomel stops the itching at once, according to the advocates of this method. Nitrate of silver is sometimes used. The patient should be kept cool in bed. Hypnotic suggestion has been tried with success. Electricity is said to have given good re-

sults. It is well, after bathing the parts, to apply a powder like bismuth, oxide of zinc and starch or orthoform. However, each case must be studied as a distinct problem.—Malcolm Morris in *Monthly Cyclopædia of Practical Medicine.*

The Gonococcus as a Cause of Disease.—Before Neisser's discovery in 1879 an attack of gonorrhea seemed a trivial matter, and the cessation of the discharge was hailed, both by patient and physician, as the termination of the disease. Now we have learned to know better, and are gradually realizing that the gonococcus is one of the most destructive and baneful organisms which infects the human economy. Unless persistently combated from the start, it is liable to extend to the deep urethra, the prostate and seminal vesicles in the male, and to the uterus, tubes and ovaries in the female, giving rise to disorders which only too frequently persist for a lifetime. There is no doubt that renal disease is often due to gonococcal infection, and the frequency of gonorrheal affections of the joints is only now being properly understood. It is scarcely necessary to mention how many eyes have been sacrificed to gonorrhea.

Unfortunately, our medical literature in recent years shows that gonorrhea is not by any means uncommon in the very young. It is startling to read the statistics of dispensary physicians in what has been called the "red-light" district of New York, and it is to be hoped that the spirit of prudishness, which has been one of the greatest obstacles to efficient prophylaxis in this country, will soon yield to a more liberal spirit, leading to the adoption of some practical means of greatly diminishing the spread of the disease.—*International Journal of Surgery.*

Digestion, Mixture of Digestive Juices with Bile In.—Boldyrieff (Roussky Vratch, October 2, 1904,) found, as the result of a long series of experiments on dogs, that if the diet contains a great deal of fat, if there is an excess of acids in the stomach, or if the animal is allowed to starve, a stream, consisting of a mixture of pancreatic and intestinal juices with bile, enters the stomach. This fact may probably be utilized for obtaining pancreatic and intestinal juices in man for the purpose of diagnosis. When fatty food is ingested, digestion probably takes place largely through the aid of the ferments of the pancreatic juice. When examining the stomach contents or specimens of vomited matter, it should always be remembered that pancreatic and intestinal juices may be mixed with the sample under consideration. The absence of free hydrochloric acid and of pepsin ferment in the stomach contents may be noted even in perfectly healthy stomachs after test meals, provided the hydrochloric acid has been neutralized completely by the alkalies of the pancreatic juice, and the pepsin ferment has been hampered in its action by the presence of bile. In investigating the motility of the stomach by means of test meals, the possibility of the entrance of pancreatic and intestinal juice and of bile into the stomach must be taken into consideration, thus increasing the amount of fluids found therein after

a certain time. In examining the gastric motility by means of salol, it will be necessary hereafter to take into account the decomposition of salol by the pancreatic and intestinal juices in the stomach. Gastric digestion is by no means so simple as had been hitherto supposed.—*Monthly Cyclopedia of Practical Medicine.*

Digitalis as Cause of Cardia Dissociation.—The graphic tracings and post mortem findings of a case are given to show the danger of routine treatment of heart affections with digitalis. The clinical diagnosis was rheumatic endocarditis and endarteritis on an alcoholic basis. After each dose of digitalis the action of the right heart became much stronger, while that of the left heart became weaker. Such a disturbance in the cordination could not be explained only by changes in the right coronary artery which prevented it from contracting. The right ventricle was stimulated to excessive action. The left ventricle was unable to take charge of all the blood delivered by by the right, and dyspnœa and œdema indicated the disturbed compensation. These phenomona could be explained only by assuming that digitalis had an exaggerated actiou on the right heart, which would be the consequence of dilatation of the right coronary. The clinical assumption that the right coronary was dilated was confirmed by the post mortem findings of sclerosis and a lumen fourteen millimeters in diameter, while that of the left coronary was only eight millimeters. Pharmacological dissociation, resulting from degeneration of the right coronary artery, has been observed by the writer in two previous cases. The curves show the weak pulsation of the left ventricle and the excessive act of the right. The duplicated pulse in the jugular vein was probably attributable to an accessory contraction of the right auricle. Dissociation of the heart action can be studied at the bedside more instructively than on animals' hearts.—T. von Openowski in *Berliner Klinische Wochenschrift*, Vol. xli, No. 40; from *Journal of the American Medical Association.*

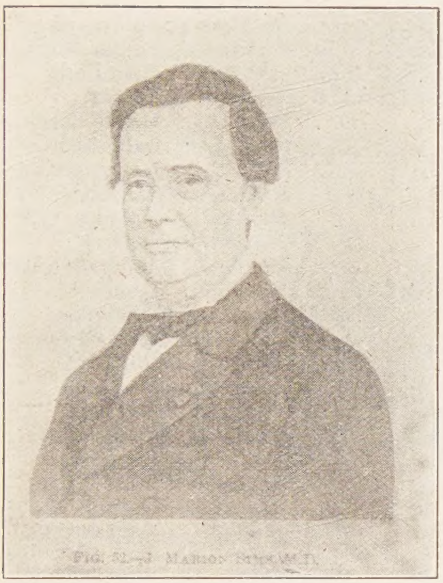
Excision of the Cecum in a Child.—At a meeting of the Chicago Surgical Society, February 2, 1903, Dr. Jacob Frank presented a child nineteen months old. He said that twelve months ago he was called at 11 o'clock at night to see the child, and found it in a critical condition. The history given by the mother was that the child had always been a "colicky" baby. The child had been playing on the floor, when suddenly it was seized with a severe pain, vomited, and passed blood, after which it became very ill. He made a diagnosis of intussusception. The mother took the child to the hospital, and at 2 o'clock in the morning he opened the abdomen. In examining the coils of intestine he did not find what he thought was a recent intussusception, but in making a further examination he came upon the appendix, which seemed as though it were binding the cecum down. He removed the appendix, and in following the cecum he found it was a hard mass. He therefore resected the entire cecum, making practically two operations. He used one of his absorbable bone

couplers in making the intestinal anastomosis, and removed the stitches at the end of seven days. In ten days the child left the hospital. The child was now in perfect health. The specimen was exhibited.—*Annals of Surgery.*

Clubfoot, Early Treatment Of.—Most writers on this subject advise beginning treatment as early as possible; at birth or soon after. The author differs from this view and doubts the advisability of instituting treatment at this early stage, and prefers waiting until the child is able to walk. Appreciating the ossification periods and all the arguments advanced in favor of early treatment, yet he is not convinced that enough is gained to justify the continued interference with the nutrition of the child at the time when every effort must be directed to perfect the infant feeding and hygiene. The excoriations, strained tendons and ligaments must surely inhibit digestion, and if digestion is inhibited nutrition cannot satisfactorily proceed. Although he declines to treat clubfoot in young infants until they are able to walk, he does not infer that nothing ought to be done during the first eighteen months. The severe forms of treatment should be mitigated, as it is well known that a large number of cases of moderately high degree are corrected by the hand of the mother. This good work should merely be supplemented by simpler forms of apparatus.—V. P. Gibney in *Monthly Cyclopædia of Practical Medicine.*

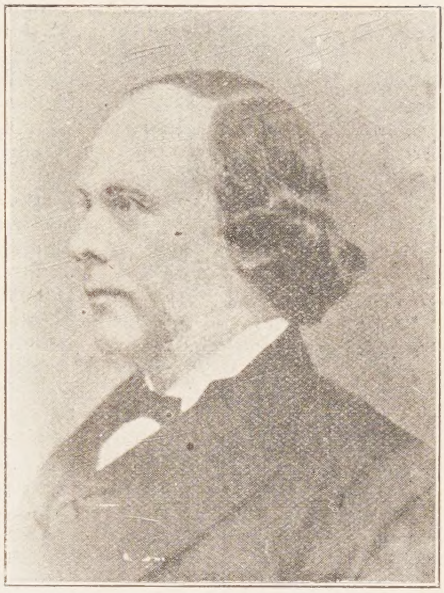
The Expired Air of Phthisical Patients.—The author publishes the following results of experiments conducted by him with a view to ascertaining whether the air exhaled by phthisical patients during quiet respiration is free from tubercle bacilli, viz.: (1) Such air is not free, but the bacilli are present in such small numbers that it can be practically ignored as a source of infection; (2) the chief sources of infection are the spray produced in coughing and the pulverization of the dried sputum, and (3) tuberculous involvement of the larynx increases the number of the bacilli in the expired air of quiet respiration to such an extent that, whereas, when this condition is not present the presence of germs cannot always be proved experimentally, such can always be effected when it exists. —*Zeitschrift fuer Hygiene.*

BIOGRAPHICAL SKETCHES.



J. MARION SIMS.

Of gynecologists America has had many who stand out prominently in the history of medical progress, none more so, perhaps, than J. Marion Sims. He was born in the South in 1813. Here in 1852 he invented his well known speculum, the introduction of which marks an epoch in the treatment of the pelvic diseases of women. In South Carolina among the poor negro women he perfected his method of plastic surgery in the vagina for the relief of vesical fistulæ. Later, he demonstrated the method in Paris to the astonishment of incredulous Parisian surgeons, who had almost uniformly failed in their attempts. He successfully and brilliantly performed this operation in all the capitals of Europe, where, as in this country, he enjoyed the highest reputation as a gynecologist. He founded, in 1855, the great Women's Hospital in New York. He died in 1883.



LORD LISTER.

Lord Lister, to whom is due the credit of originating the antiseptic system, was born April 5, 1827, at Upton, Essex. In 1852, at the age of twenty-five, he was admitted a Fellow of the Royal College of Surgeons of England. In 1860, he began his bacterial work in connection with antiseptics in Glasgow, this work being based largely upon the results of the researches of Tyndall, Pasteur and Koch. In 1880 he received the Royal Medal, and in 1892 the Copley Medal, among the highest distinctions which the Royal Society has to give. In 1895 he became president of the Royal Society, and in 1896 president of the British Association for the Advancement of Science. In 1897 he became Peer with the title of Baron Lister, and in 1902, on the occasion of the Coronation, his name appeared in the first list of members of the Order of Merit, and he was sworn a member of the Privy Council.

COUNTY SOCIETIES IN AFFILIATION WITH THE STATE MEDICAL ASSOCIATION.

COUNTY.	PRESIDENT.	ADDRESS OF PRESIDENT.	SECRETARY.	ADDRESS OF SECRETARY.
Atchison	E. E. Richards	Tarkio	A. McMichael	Rockport.
Audrain	C. A. Rothwell	Mexico	E. S. Cave	Mexico.
Bates	A. E. Lyle	Butler	E. N. Chastian	Rich Hill.
Boone	J. E. Thornton	Columbia	W. A. Norris	Columbia.
Buchanan	P. I. Leonard	St. Joseph	Chas. W. Fassett	St. Joseph.
Butler	W. A. Kendall	Poplar Bluff	J. J. Norwine	Poplar Bluff.
Caldwell	C. C. Leeper	Braymer	Tinsley Brown	Hamilton.
Callaway	D. H. Young	Fulton	J. F. Harrison	Fulton.
Camden	G. M. Moore	Linn Creek	G. T. Myers	Macks Creek.
Carroll	W. C. Baird	Bogard	R. F. Cook	Carrollton.
Cass	R. D. Ramey	Garden City	J. S. Triplett	Harrisonville.
Chariton	H. C. Tatum	Brunswick	C. A. Jennings	Salisbury.
Clark	H. W. Harris	Winchester	A. C. Bridges	Kahoka.
Clay	L. J. Jones	Linden	F. H. Matthews	Liberty.
Cole	J. P. North	Jefferson City	G. Ettmueller	Jefferson City.
Cooper	P. L. Hurt	Boonville	R. S. Holman	Boonville.
Crawford	W. A. Metcalf	Steeleville	A. H. Horn	Steelville.
Current River	Frank Hyde	Eminence	J. A. Chilton	Van Buren.
Daviess	J. D. Dunham	Pattonsburg	M. A. Smith	Gallatin.
Grundy	J. A. Asher	Trenton	W. D. Fulkerson	Trenton.
Henry	Jno. H. Britts	Clinton	F. M. Douglas	Clinton.
Holt	B. T. Quigley	Mound City	J. F. Chandler	Forest City.
Howard	A. W. Moore	Fayette	C. W. Watts	Fayette.
Howell	J. W. Bingham	Pottersville	H. C. Shuttee	West Plains.
Iron	R. W. Gay	Ironton	Ira A. Marshall	Ironton.
Jackson	Robt. T. Sloan	Kansas City	Max Goldman	Kansas City.
Jasper	R. L. Neff	Joplin	J. D. Pifer	Joplin.
Johnson	M. P. Shy	Knobnoster	E. H. Gilbert	Warrensburg.
John T. Hogden	T. H. Duckett	Harrisonville	T. C. Boulware	Foster.
Laclede	J. M. Billings	Lebanon	J. A. McComb	Lebanon.
Linn	G. N. Lantz	Brookfield	D. F. Howard	Brookfield.
Livingston	R. Barney	Chillicothe	H. M. Grace	Chillicothe.
McDonald,	E. F. Doty	Anderson	M. L. Sellers	Anderson.
McDowell Dist	John D. Seba	Bland	J. W. Nieweg	Owensville.
Macon	E. S. Smith	Macon	G. B. Rush	Macon.
Madison	G. W. Greenwood	Fredericktown	C. U. Davis	Fredericktown
Maries	O. C. Fritts	Lois	O. N. Schudde	Vienna.
Marion	R. H. Goodier	Hannibal	F. Janet Reid	Hannibal.
Mercer	H. P. Chesmore	Princeton	C. R. Buren	Princeton.
Miller	S. P. Hickman	Ulman	G. D. Walker	Eldon.
Mississippi	A. J. Martin	East Prairie	W. P. Howle	Charleston.
Moniteau	J. B. Stewart	Clarksburg	W. R. Patterson	Tipton.
Monroe	G. B. Dysart	Paris	W. B. A. McNutt	Monroe City.
Morgan	W. L. Hatler	Barnett	J. T. Beale	Versailles.
Nodaway	J. A. Larrabee	Barnard	F. R. Anthony	Maryville.
Newton	J. W. Lamson	Neosho	Horace Bowers	Neosho.
Pettis	W. C. Overstreet	Sedalia	W. S. Shirk	Sedalia.
Phelps	W. H. Breuer	St. James	S. L. Baysinger	Rolla.
Platte	R. P. Davis	Woodruff	G. C. Coffey	Platte City.
Putnam	C. H. Carryer	Hartford, Mo	T. A. Townsend	Unionville.
Ralls	O. B. Hicklin	New London	T. J. Downing	New London.
Randolph	D. A. Barnhart	Huntsville	S. C. Adams	Huntsville.
Ray	Chas. B. Shotwell	Richmond	L. D. Greene	Richmond.
Reynolds	J. M. Lowery	Centerville	T. W. Chilton	Corridon.
Saline	D. C. Gore	Marshall	D. F. Bell	Marshall.
St. Clair	W. Cline	Appleton City	E. D. Miles	Osceola.
St. Louis	F. L. Henderson	Century Bldg	T. A. Hopkins	Century Bldg.
St. Louis Co	H. G. Wyer	Kirkwood	H. T. Randle	Clayton.
Schuyler	J. T. Jones	Queen City	H. E. Gerwig	Downing.
Scotland	W. E. Alexander	Memphis	O. F. Pile	Memphis.
Shelby	H. C. Vaughn	Shelbina	A. M. Wood	Lentner.
Stoddard	D. R. Corbin	Bloomfield	Jno. Ashley	Bloomfield.
Sullivan	J. C. Kessenger	Milan	J. S. Montgomery	Milan.
Washington	J. A. Eaton	Belgrade	W. S. Smith	Belgrade.
Wayne	L M. Pettit	Greenville	I. N. Barnett	Piedmont.